

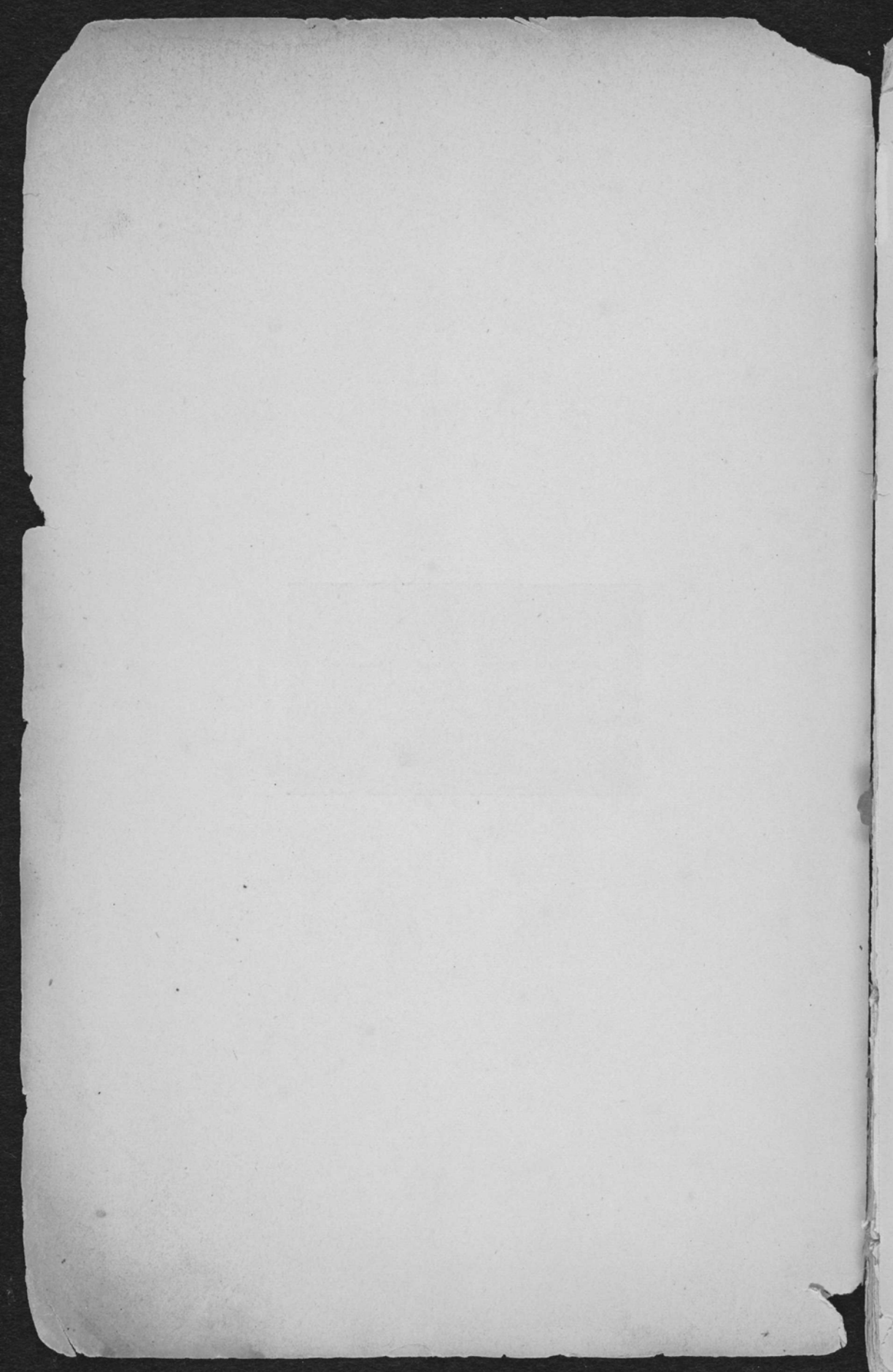
REPORT  
OF THE 17-3-5  
COMMISSIONERS OF HEALTH,  
IRELAND,  
OR  
THE EPIDEMICS  
OF  
1846 TO 1850.

*Presented to both Houses of Parliament by Command of Her Majesty.*



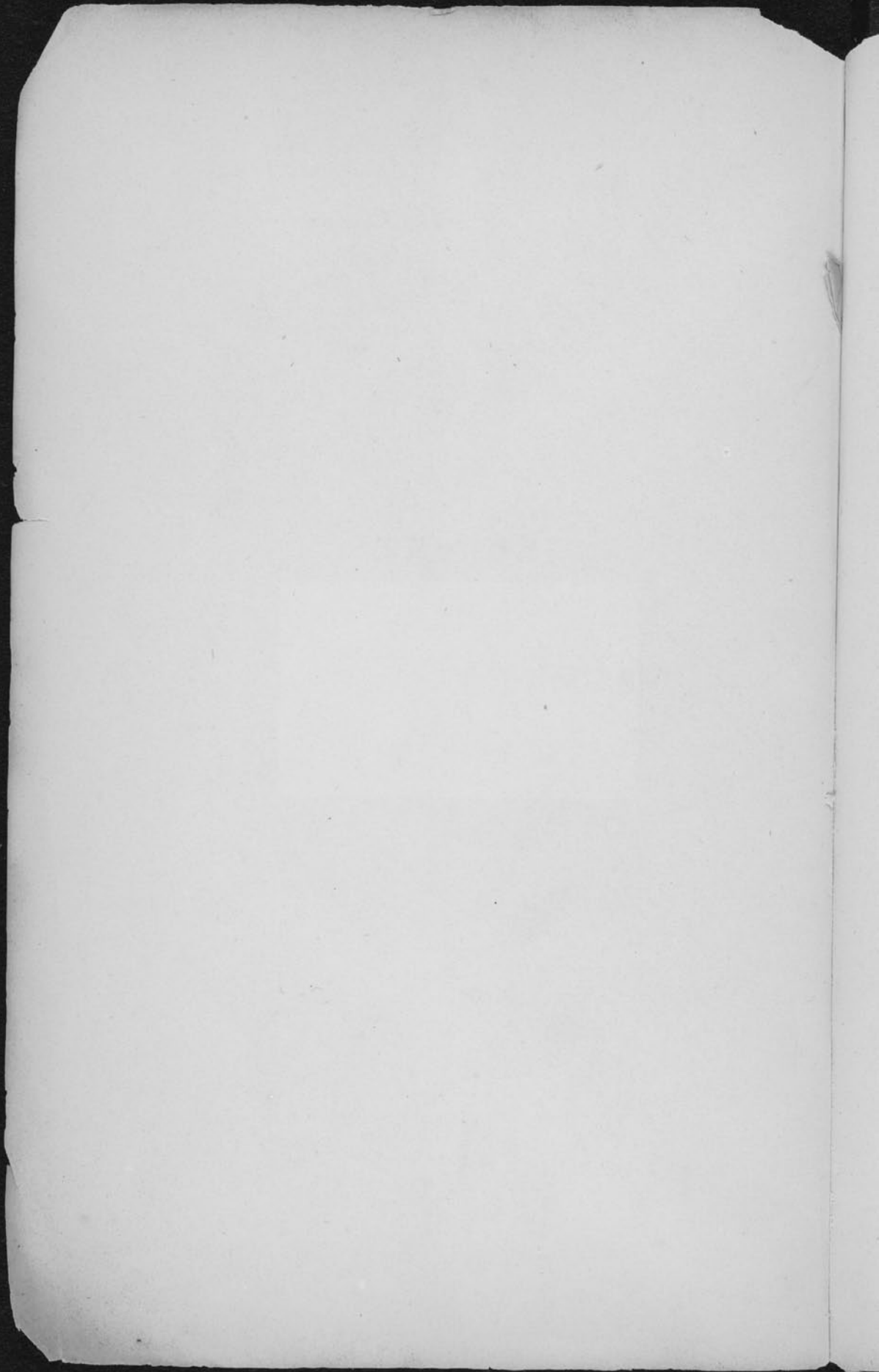
4-5  
DUBLIN:  
PRINTED BY ALEXANDER THOM, 87, ABBEY-STREET,  
FOR HER MAJESTY'S STATIONERY OFFICE.

1852.



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R E P O R T  
OF THE  
COMMISSIONERS OF HEALTH,  
IRELAND.

REPORT

COMMISSIONERS OF HEALTH

THE STATE

REPORT  
OF THE  
COMMISSIONERS OF HEALTH,  
IRELAND,  
ON  
THE EPIDEMICS  
OF  
1846 TO 1850.

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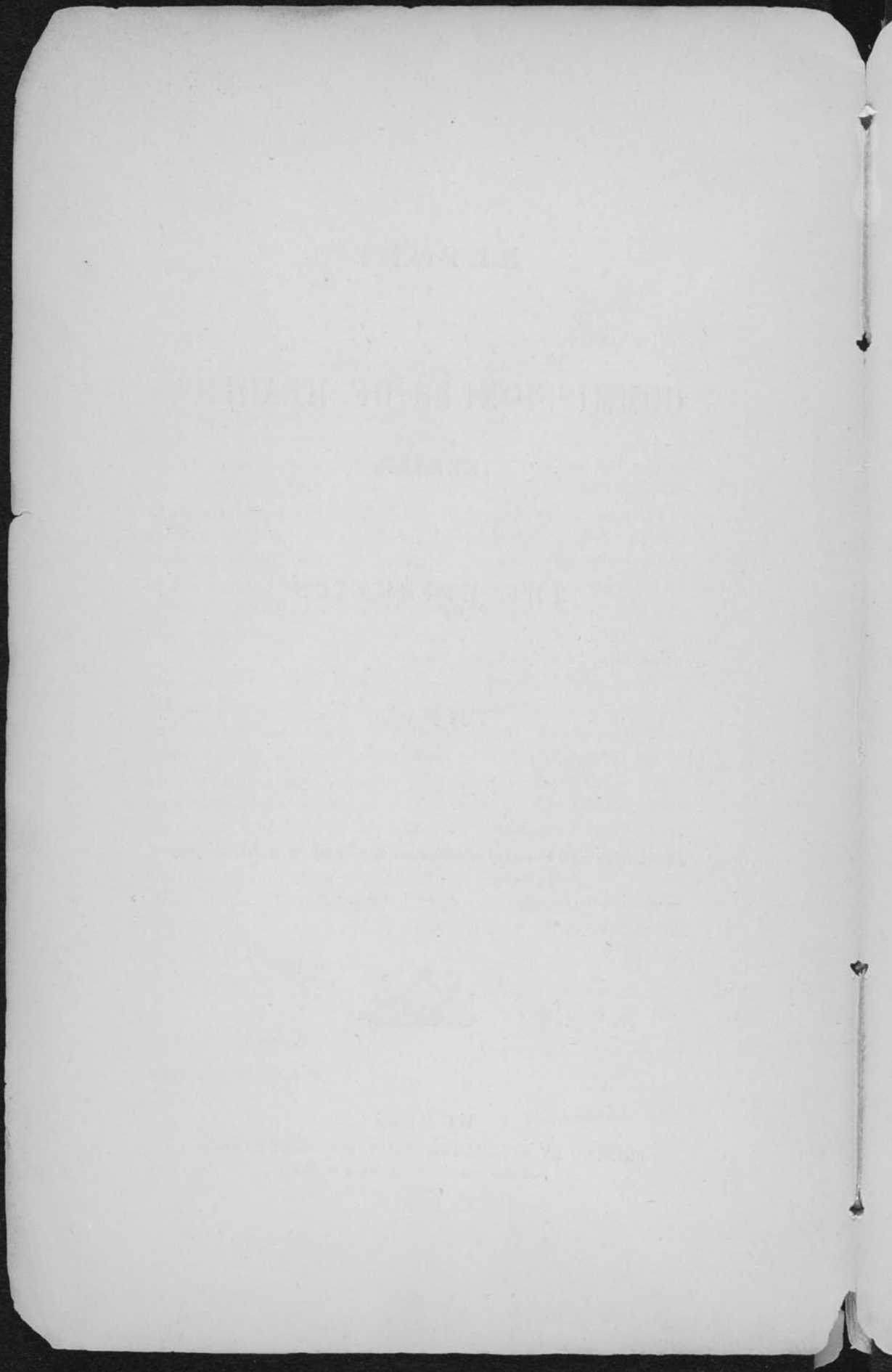
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FOR HER MAJESTY'S STATIONERY OFFICE.

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1852.



DUBLIN CASTLE,  
29th August, 1850.

GENTLEMEN,

The Temporary Fever Acts, under which your duties, as Commissioners of Health, were exercised, having expired, I have been directed by the Lord Lieutenant to tender to you, on the part of Her Majesty's Government, his best thanks for the services which, in that capacity, you have rendered to the community.

From the eminent professional position which you occupy in this city, the Lord Lieutenant is fully aware that these onerous duties must have been undertaken at considerable personal inconvenience; and his Excellency has desired me to assure you that he fully appreciates the motives which induced you to enter upon them, as well as the ability and efficiency with which they have been performed.

The unusual duration of the epidemic during which you have acted as Commissioners of Health, connected as that epidemic was with the misery and distress caused by the failure of the potato crop, will no doubt have enabled you to acquire much information which may be hereafter most useful should a similar visitation ever occur again; and if you would be so kind as to furnish his Excellency with a report embodying your views and opinions upon this important and interesting subject, such a document would, in his opinion, be most valuable, and he would be prepared to lay it before Parliament at the commencement of the next session.

I have the honor to be,

Gentlemen,

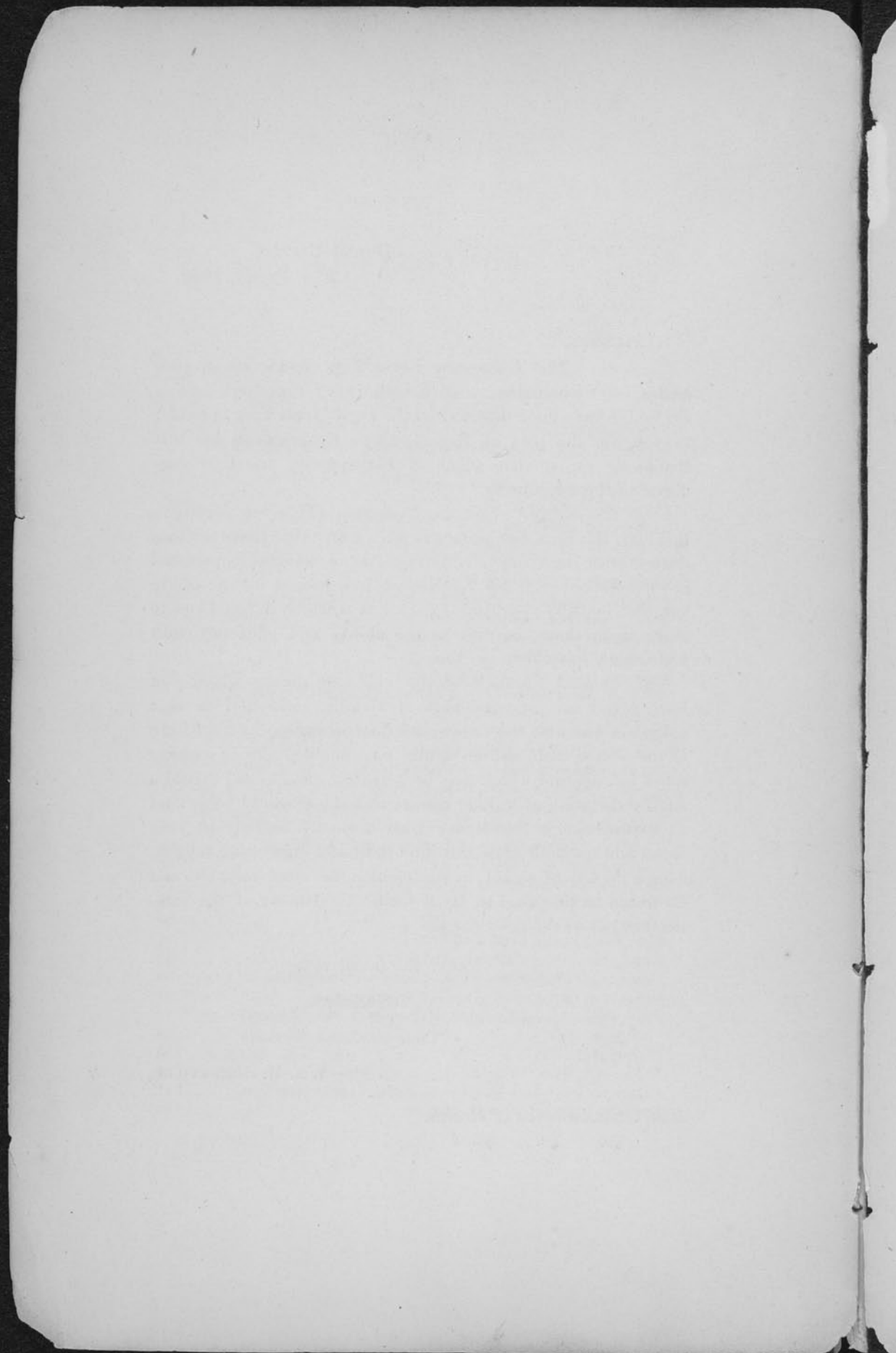
Your obedient Servant,

WM. M. SOMERVILLE.

*The Commissioners of Health,*

*&c.      &c.      &c.*





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REPORT  
OF  
THE COMMISSIONERS OF HEALTH,  
IRELAND,  
ON THE EPIDEMICS  
OF  
1846 TO 1850.

---

TO HIS EXCELLENCY GEORGE WILLIAM FREDERICK EARL OF CLARENDON, K.G., LORD  
LIEUTENANT GENERAL AND GENERAL GOVERNOR OF IRELAND.

*May it please Your Excellency.*

IN compliance with the request conveyed to us in Sir William Somerville's letter of the 29th of August, 1850, we beg to lay before your Excellency the following Report.

The failure, to a considerable extent, of the potato crop, in the autumn of 1845, had early awakened the attention of Her Majesty's Government to the suffering and distress that must necessarily result to a population whose means would not enable them to obtain grain food as a substitute for their ordinary diet.

Among the consequences to be dreaded from this calamity was a visitation of epidemic Fever, for experience had shown that a scarcity of food in Ireland, if of any considerable duration, had been invariably followed by an epidemic of Fever. With the view of providing measures to meet this apprehended danger, the Temporary Fever Act, 9 Vict., cap. 6, was enacted on the 24th March, 1846, under the provisions of which it became the duty of the Commissioners of Health to issue such requisitions for the providing of medical relief for the poor of Ireland, suffering under Fever and other epidemic diseases, as might appear to be requisite.

The Summer of 1846 passed over without producing much cause of alarm, and the applications for the intervention of the Board having only amounted to seventeen, the sittings of the Board ceased in August of that year.

The potato crop having again failed in 1846, the effects of this second failure were severely felt in the succeeding winter, of 1846-7, when potatoes rose to seven shillings per cwt., the price in 1845 having been only two shillings per cwt. Want of employment and of food began to give rise to great suffering. Reports of the appearance of Fever were received from various parts of the country; and the returns from the hospitals of Dublin beginning to show an increasing prevalence of Fever in the city, the Earl of Bessborough, then Lord Lieutenant, re-appointed the Board of Health in February, 1847; and from that date the Board continued its sittings daily, until the termination of the parliamentary session, in August, 1850.

The state of the medical institutions of Ireland was unfortunately such as peculiarly unfitted them to afford the required medical aid on the breaking out of the epidemic.

The county infirmaries had not provision for the accommodation of fever patients. The county fever hospitals were destitute of sufficient funds, and dispensaries, established for the purpose of affording only ordinary out-door medical relief could, of course, afford no efficient attendance on the numbers of destitute persons suffering from acute contagious diseases in their own miserable abodes—often scattered over districts several miles in extent.

In February and March, 1847, the applications for the intervention of the Board became numerous, as will be seen from the following epitome:—

Number of applications received in each month of the years 1847, 1848, and 1849, for the provision of temporary hospital accommodation.

1847.			1848.			1849.		
February,	-	14	January,	-	15	January,	-	9
March,	-	51	February,	-	18	February,	-	15
April,	-	53	March,	-	10	March,	-	13
May,	-	52	April,	-	15	April and	}	26
June,	-	22	May,	-	21	May,		
July,	-	60	June,	-	10	June,	-	10
August,	-	48	July,	-	9	July,	-	8
September,	-	10	August,	-	4	August,	-	3
October,	-	8	September,	-	3	September,	-	1
November,	-	13	October,	-	10			
December,	-	12	November,	-	19			
			December,	-	14			
						Total,	-	576

Requisitions for the provision of hospital accommodation were not complied with in all cases, as in some instances it



appeared, on the necessary inquiries being made, that the relief demanded was not absolutely required.

In every instance in which an application was made, the following form of inquiry was forwarded:—

APPLICATION FOR CERTIFICATE OF THE BOARD OF HEALTH,  
*Under sec. 2, of 10 Vic., cap. 22.*

"1. Name of Electoral Division or Divisions respecting which the application is made; and name of Union in which comprised.

"2. Whether there is any, and what Hospital accommodation already available for the district, or any Dispensary.

"3. District (stating the Electoral Divisions) from which such Hospital or Dispensary relieves patients.

"4. Name of Medical Officer of such Hospital or Dispensary.

"5. If there is no Hospital available for the District, state the nearest Hospital, and its distance.

"6. Extent to which Fever or other Epidemic Disease prevails in the Electoral Division or Divisions to which the application relates; stating, as nearly as may be, the number of cases which are not in any Hospital.

"7. If it be desired to provide temporary Hospital accommodation for the District, state the number of Beds for which the Relief Committee consider it necessary to provide.

"8. And the name of the locality which it is proposed to select for the Hospital.

"9. Whether a fitting house is procurable for the purpose, or whether it is proposed to provide temporary sheds, of which Plans can be furnished by the Board of Health.

"10. Has a Relief Committee been constituted under the Temporary Relief Act, 10 Vic., c. 7, for the Electoral Division or Divisions to which the application relates?

"11. Is the application approved by the Inspector of the Union?

"12. Population, and length and breadth in miles of District; and any additional observations that may be deemed necessary.

"The Central Board of Health consider it preferable, on economical and other grounds, that where Hospital accommodation is required for adjoining or neighbouring districts, one Hospital, placed in a central position, should be made to serve for such districts, rather than that small separate establishments should be provided; and it is recommended that, where practicable, communication should be had with the Relief Committees of adjoining Districts, as to the amount of Hospital accommodation that may be requisite.

Signature of Chairman of Relief Committee or Committees.

Date and Post-town.

Signature of the Inspector of the Union.

If still further inquiry or information were deemed necessary by the Board, a Medical Inspector was then directed to inquire into, and report on the extent of disease in the district.

The aggregate number of applications from Relief Committees and Boards of Guardians amounted to . . . 576

The requisitions granted by the Board for the provision of hospital accommodation, amounted to . . . 373

The number of applications refused was . . . 203

The dates of the requisitions for hospital or dispensary relief may be considered as indicating, to a certain degree, the rise and progress of the epidemic in the different localities; and, in accordance with this view, the requisitions issued from February, 1847, are stated in the order of their dates in the table in the appendix (see appendix, A. No. 14).

In the principal cities and towns, Dublin, Waterford, Cork, Limerick, Galway, and Belfast, the following was the order of the requisitions issued:—

Dublin	.	.	.	4th May, 1847.
Waterford	.	.	.	5th „ „
Cork	.	.	.	17th „ „
Limerick	.	.	.	24th „ „
Galway	.	.	.	29th „ „
Belfast	.	.	.	13th Nov., „

In Sligo, proceedings were taken under the 48th George III., cap. 47; the Commissioners are, therefore, unable to give any return of the rise and progress of the epidemic in that town.

The table (see appendix, A. No. 15) will show the progress of fever from July, 1847 (when weekly reports first began to be regularly furnished to the Board), until the month of August, 1850, when the Temporary Fever Acts expired. From these returns it appears that the total number of persons treated within the above period of three years and two months in hospitals, provided under requisitions of the Board of Health, was 332,462, and that of these, 34,622 died, showing a mortality of ten two-fifths per cent. on the number of patients received into hospitals.

The proportions of the sexes were as follows:—

	Total Number.	Number of Deaths.	Mortality per Cent.
Males ....	158,739	17,800	11½
Females ....	173,723	16,822	9½

An opinion has been entertained by many that the mortality in Fever is less among the poor lying out under temporary sheds, in dry ditches, or in their own wretched cabins, than among those received into hospital. This, however, is a fallacy which has been corrected by the reports of our Inspectors. It arose from the circumstance, that the deaths of all who die in hospital are registered; but there is no record of those who perish on the road sides, or in their own abodes—the deaths that occurred in such circumstances being very frequently unknown, even among the neighbouring inhabitants, until the bodies of those who had died were discovered by the Medical Inspectors.

The mortality of different periods and places, occasionally differed widely from the general average mortality. On some occasions the rate of mortality increased to 15, and even to as high as 29 per cent. With a view of ascertaining whether such high rates of mortality could be traced to any particular causes, the following Circular was issued to the Medical Officers of hospitals wherein the mortality for the half year exceeded 15 per cent. :—

(COPY CIRCULAR.)

“ SIR—I am directed by the Central Board of Health to draw your attention to the half-yearly return of patients treated in the hospital at ——— under your care, from which it appears, that during the half-year, ended ———, the mortality has been ——— per cent. (there having been admitted ——— patients, ——— died, ———, remaining). As this rate of mortality from Fever is so much beyond the usual average in Ireland, the Commissioners will feel obliged for any information in your power which may tend to account for the same.

“ I have the honor to be, Sir,

“ Your obedient Servant,

“ W. H. HOPPER, Secretary.

“ To Medical Officer.”

The following contains an Epitome of the Answers received from Medical Officers in reference to the above Circular.

UNION.	Locality of Hospital.	Number of Patients treated.	Number of Deaths.	Rate of Mortality per cent.	Observations of Medical Officers relative to the rate of Mortality.	Name of Medical Officer.	DATE.
Ballinasloe, .	Carnacreeg, .	471	141	29 $\frac{3}{4}$	Attributed to many of the patients being attacked by Fever, Dysentery, and Cholera, consecutively—to many of them being reduced and worn down by cold and famine prior to entering the hospital, and to the overcrowded state of the Fever Hospital, . . . . .	Dr. Butler, .	November, 1849. 7th.
Parsonstown, .	Parsonstown, .	2,024	660	29 $\frac{1}{2}$	Mortality attributed to patients in Fever being also attacked by Diarrhoea, and their inability to resist such attacks from their constitutions having been debilitated by want, . . . . .	Dr. Waters, .	13th.
Ballinasloe, .	Eyreecourt, .	743	218	29 $\frac{1}{4}$	The deaths attributed to the destitution prevailing in the district, and to the hopeless state in which many of the patients were when brought to hospital, . . . . .	Dr. Coates, .	9th.
Limerick, .	Limerick, .	817	235	28 $\frac{1}{4}$	The entire number of deaths were cases of Dysentery or Measles. The Patients in Dysentery were old and debilitated by previous destitution. Those in Measles were chiefly very young children, who became victims to Inflammation of the lungs from exposure to cold in their transmission from the workhouse to the hospital, . . . . .	Dr. Brodie, .	8th.

Skibbereen, . . .	West Skull, . . .	304	84	271 $\frac{1}{2}$	The mortality attributed to starvation, and disease induced thereby, the great majority of the patients suffering from the worst form of Dysentery, of long standing, and without a hope of recovery when admitted into hospital, . . .	Dr. Sweetman, . . .	10th.
Cavan, . . .	Milltown, . . .	500	134	26 $\frac{3}{4}$	The mortality attributed chiefly to the overcrowding of the hospital, and to very many of the patients being pauper children from the workhouse, who were carried off by a complication of diseases, . . .	Dr. O'Donovan, . . .	11th.
Scariff, . . .	Tulla, . . .	504	126	25	Attributed to patients in Fever or Dysentery being attacked by Cholera, also to the bad construction of the hospital, the roof of which, being canvas, admitted both wind and rain, the floor being constantly wet, and the wards filled with smoke, from the necessity of lighting the fire on the floor, . . .	Dr. Molony, . . .	7th.
Nenagh, . . .	Nenagh, . . .	1,448	360	24 $\frac{1}{2}$	The mortality attributed to the debilitated state of the patients; of the deaths, 89 were children, and many patients were brought in moribund, . . .	Dr. Quin, . . .	12th.
Ballinrobe, . . .	Clonlaur, . . .	862	89	24 $\frac{1}{16}$	The deaths were—from Fever 38, Dysentery 18, Cholera 26, patients brought in moribund 7, . . .	Dr. Roberts, . . .	11th.
Dungarvan, . . .	Clashmore, . . .	218	50	22 $\frac{1}{2}$	The greater number of the deaths proceeded from Cholera and Dysentery, . . .	Dr. Ronayne, . . .	15th.
Fernoy, . . .	Rathcormack, . . .	603	138	22 $\frac{1}{2}$	Of these deaths, 7 occurred from Variola. The mortality is principally attributed to the debilitated state of the patients from destitution prior to the attack of disease, and to very many cases of Fever being complicated with Gastric symptoms, . . .	Dr. Barry, . . .	11th.
Ennistymon, . . .	Milltown-Malbay, . . .	560	122	21 $\frac{1}{2}$	The mortality attributed to famine, and to the virulence of disease; also to the small size of the hospital, which compelled the Medical Officer to admit only the worst cases, . . .	Dr. Costelloe, . . .	10th.



## Answers from Medical Officers—continued.

UNION.	Locality of Hospital.	Number of Patients treated.	Number of Deaths.	Rates of Mortality per cent.	Observations of Medical Officers relative to the rate of Mortality.	Name of Medical Officer.	DATE.
Scariff, .	Killaloe, .	276	58	21	The mortality attributed to the debilitated condition of the patients, many of whom were brought to hospital in a hopeless state, . . .	Dr. Roe, .	November, 1849.
Kanturk, .	Kilkashin, .	800	166	20½	There were 26 deaths out of 54 cases of Small Pox, and of 252 cases of Dysentery, 93 died. This shows that the great mortality is from Dysentery and Small Pox, . . .	Dr. Hudson, .	12th. 15th.
Nenagh, .	Borrisokane, .	269	55	20½	The deaths are attributed to patients being attacked by both Fever and Dysentery, and subsequently by Cholera, the Sanitary Committee declining to provide a Cholera hospital, . . .	Dr. Stoney, .	8th.
Galway, .	Galway, .	1,052	209	19½	A large proportion of deaths occurred amongst children suffering from malignant Small Pox, and Fever of a typhoid character; many cases of Fever and Dysentery were also admitted into hospital without hope of recovery, partly from neglect of the disease at its commencement, and partly from the long distance many had to travel to hospital in very inclement weather, . . .	Dr. Colohan, .	9th.

Middleton,	Youghal,	810	150	19 $\frac{1}{2}$	Of the deaths, 50 were from Fever, 79 from Dysentery, the remainder from other causes; the high mortality was induced partly by previous privation, and partly by disease having progressed too far previous to admission—the victims being chiefly those of either a very early or late period of life.	Dr. Green,	7th.
Ballinasloe,	Alascragh,	221	49	19 $\frac{1}{2}$	The deaths attributed to the debilitated state of the patients for want of proper food prior to admission into hospital, and to many of them being brought in moribund.	Dr. Kerans,	9th.
Skibbereen	Abbeystrouny,	1,321	257	19 $\frac{1}{16}$	The greater number of deaths were caused by Dysentery, accompanied by Anasarca, Scorbutics, Phthisis, &c., and very malignant Cholera. The diseases were aided by the debility of the patients from destitution, and to neglect of the first symptoms of disease.	Dr. Donovan,	11th.
Gort,	Gort,	1,489	286	19 $\frac{1}{3}$	During this period destitution among the poor was peculiarly intense; the constitutions of many on coming to hospital were so weakened by previous starvation and disease, as to preclude all hope of recovery; 5 died on the day of admission, 30 on the second day after admission, 17 on the third, 23 on the fourth.	Dr. Nolan,	21st.
Tuam,	Ballygaddy,	1,056	201	19 $\frac{1}{4}$	Of these deaths, 56 were from Fever, 84 from Dysentery, and 42 from Cholera; attributed chiefly to the patients not reaching hospital until past relief.	Dr. Turner,	7th.
Kilmallock,	Ballinlanders,	498	94	18 $\frac{1}{2}$	Of 390 Fever patients, 28 died, the remainder 66 deaths were from Dysentery, which may be attributed to the very destitute state of the poor.	Dr. Murphy,	15th.

## Answers from Medical Officers—continued.

UNION.	Locality of Hospital.	Number of Patients treated.	Number of Deaths.	Rate of Mortality per cent.	Observations of Medical Officers relative to the Rate of Mortality.	Name of Medical Officer.	DATE.
Enniscorthy, .	Enniscorthy, .	812	151	18 $\frac{1}{2}$	The greater number of deaths occurred among patients sent into hospital in an advanced stage of disease, and may be attributed to the broken down constitutions of the patients previous to admission,		November, 1849.
Scariff, .	Scariff, .	670	124	18 $\frac{1}{2}$	Attributed to the miserable condition of the poor, and to the prevalence of Cholera, . . .	Dr. Goodisson, .	10th.
Cork, .	Barrack-street, .	2,529	444	17 $\frac{1}{2}$	Attributed to Small Pox, Measles, Scarlatina, &c., being admitted in addition to Fever, Dysentery, and Cholera; 214 of the deaths were caused by Cholera, and many others are ascribed to the debilitated state of the patients from destitution, . . .	Dr. Williams, .	7th.
Galway, .	Moycullen, .	510	88	17 $\frac{1}{2}$	The mortality attributed to the debilitated state of the patients from destitution and previous disease, and to the delay in admissions from insufficient hospital accommodation, . . .	Dr. Jeffries, .	10th.
Cavan, .	Ballymacalough, .	147	25	17	Attributed to many of the patients being worn down by disease prior to their admission to hospital. . .	Dr. Roughan, .	8th.
Ballinabrough, .	Ballinabrough, .	1,089	185	16 $\frac{1}{2}$	The mortality attributed to Diarrhea (154 deaths, two-thirds of whom were children, being caused by that disease), aided by debility of constitution from long endured starvation. . .	Dr. Alcock, .	7th.
						Dr. Fleming, .	13th.

Parsonstown,	Frankford,	196	33	16 $\frac{1}{2}$	The mortality attributed to Dysentery, supervening on Fever, and to many patients being admitted in a moribund state,	Dr. Thornton,	12th.
Clogheen,	Clogheen,	293	49	14 $\frac{1}{2}$	Attributed to patients whilst in hospital being attacked by Cholera,	Dr. Galloghly,	7th.
Callan,	Callan,	453	75	16 $\frac{1}{2}$	Mortality caused by Dysentery and Cholera—many patients were sent from a distance in a moribund state,	Dr. Cronyn,	11th.
Gort,	Kinvara,	1,221	189	15 $\frac{1}{2}$	Mortality attributed to Dysentery, and to very many of the patients being admitted to hospital in a moribund state,	Dr. Hynes,	12th.
Roscommon,	Roscommon,	553	85	15 $\frac{1}{2}$	The deaths attributed to the greater number of the cases being complicated, and to some of the patients being admitted into hospital in a moribund state,	Dr. Harrison,	8th.
Limerick,	Castleconnel,	390	60	15 $\frac{1}{2}$	Deaths from Fever 32, Cholera 15, Dysentery 13,	Dr. Riordan,	12th.
Limerick,	Cappamore,	556	84	15 $\frac{1}{10}$	The deaths attributed to many very aged persons being seized with Fever, and to the great debility of their constitutions from previous want.	Dr. Arthur,	9th.

With regard to the type of disease, at different periods of the epidemic, which, with its complications, principally of dysentery, purpura, diarrhoea, and small-pox, has been, perhaps, unparalleled for duration and severity, the following abstracts from reports of Inspectors and Medical Officers, will afford some useful information. It may be stated in general terms, that the malignity of the disease, and of its complications, seemed mainly to have depended on the lowered state of constitutional strength induced by famine;—

PROVINCE OF MUNSTER.

*County Cork, Bandon Union, 18th March, 1847 (Dr. Stephens).—*“The fever is of a low typhoid character, and though not fatal, still convalescence is slow.”

*Waterford Union, Waterford, 23rd March, 1847 (Dr. Mackesy).—*“Fever has been steadily on the increase since November last; it is not of a malignant character.”

*County Cork, Skibbereen Union, 20th April, 1847 (Dr. Goodison).—*“Few houses can be said to be altogether free from either fever or dysentery. A new disease appears to have arisen here, under the form of Anasarca, swelling of the lower extremities, without previous fever or dysentery.”

*Waterford Union, Waterford, 13th September, 1847 (Dr. Courtenay).—*“The type of fever that at present prevails is the mild typhoid, with great prostration of strength, the general duration being 14 days, with great tendency to relapse in all cases, and these occur three or four times; the general determination has been to the abdominal mucous surfaces, gastro enteritis, dysentery, &c., &c., and, in some cases, to the respiratory organs, viz., typhoid pneumonia, pleuritis, and asthmatic bronchitis. The general sequela, and rather an extraordinary one, is erysipelas of the face, which has occurred frequently and severely since the 1st of February. Phlegmonoid has occurred in some cases, but it did not prevail epidemically in the city, nor could it be attributed to want of sufficient ventilation; the other sequela were enlarged parotid gland, and abscess opening at external meatus—purpura in the young subject. Dysentery at present prevails to a great extent, connected with, and often independent of fever.”

*County Cork, Middleton Union, Middleton, 5th October, 1847 (Dr. Courtenay).—*“Dysentery prevails here to a great and fatal amount, in fact it is more to be dreaded at the present time than fever.”

*County Cork, Kinsale Union, Nohoval, 16th October, 1847 (Dr. Courtenay).—*“The type of fever here is the simple continued, and a few cases of exclusive typhus; the usual duration is from five to eleven days, with a peculiar tendency to repeated relapses—out of 250 cases, 240 relapsed.”

*County Kerry, Tralee Union, Dingle, 21st November, 1847 (Dr. Burton).—*“The fever which prevailed was short in its duration, but most liable to relapse, no matter what means were taken to arrest it; it has usually been followed by dysentery and diarrhoea. The duration was generally from six to eight days; it was attended with as much debility and emaciation as if the patients had been confined to bed for weeks. The mortality from dysentery was considerable.”

*County Limerick, Kilmallock Union, Kilmallock, 30th November, 1847*



(Dr. Burton).—"The general type of fever is low, but mild, with a few petechial cases; typhus in about the proportion of one to ten; there is a great tendency to relapse, followed by gastric irritation and debility, with diarrhœa."

*County Tipperary, Nenagh Union, Nenagh, 11th December, 1847* (Dr. Burton).—"Fever here appears to be of the short relapsing type in two-thirds of cases, the remainder spotted typhus; usual duration of attacks four, five, or six days; head symptoms, pains in the joints, and hands, and tops of fingers, were very common; scarlatina occurred in a few instances; on an average more females than males have been attacked in this locality; bad or deficient food in all instances may be considered the causes of fever of short type."

*County Cork, Skibbereen Union, Skibbereen, 7th September, 1848* (Dr. Hill).—"Variola is very prevalent in this district; there are at present not less than seven cases in hospital. The Medical Officer states, that during the months of May, June, and July last, 110 cases of variola were treated in the temporary hospital, of whom very few had been vaccinated."

PROVINCE OF CONNAUGHT.

*County Mayo, Westport Union, Newport, 3rd May, 1847* (Dr. Daly).—"Fever, dysentery, and diarrhœa are greatly on the increase. The type of the fever is not typhus, as seen in Dublin and country practice in former years, when famine did not prevail; but is entirely gastric, beginning with vomiting, pains, headache very intense; and, as I am told, coming to a crisis in about seven days, relapsing again once or twice, from which death occurred through mere debility or diarrhœa, caused and kept up by bad food, principally Indian meal, supplied to them in small quantities, and which they invariably swallow after only a few minutes' boiling, and sometimes cold and raw. The greatest mortality is among the labourers, men and women, on public roads, in cold, wet, boggy hills. The fever begins with racking pains, headache, and shivering, all which symptoms vanish in about two days; they then appear free from pain, prostrate, dozing, and sink on the fourth or fifth day—no vital power or means of reaction appears in them."

*Galway Union, Oranmore, 7th May, 1847* (Dr. Daly).—"The type of fever is typhus, much more of it than in Mayo, where gastric fever nearly as fatal ensued. Here the use of bad shellfish is more in vogue than in Mayo, and this horrid diet produces typhus, and bowel complaints, anasarca of face and limbs, &c. I have made a calculation with the aid of the priest and doctor, and from my own observation, am satisfied, three-fourths of the population (1,000) of the town, are now ill of such disorders."

*Roscommon Union, Roscommon, 11th October, 1847* (Dr. Freke).—"The type of the fever which prevailed in this district was, in far the greater proportion of cases, of low adynamic form, general debility set in early, and, in almost every case, petechial of a measly character occurred. The duration was generally short, the fever usually terminating on the seventh, ninth, or eleventh day by profuse perspiration. Relapses were so common as to appear characteristic of the epidemic—in several instances they have occurred so frequently as three, or even four times in the same individual. In many cases a deep jaundiced hue pervaded the entire surface of the body, and, in several, there was considerable cerebral disturbance."

*County Leitrim, Manorbhamilton Union, Manorbhamilton, 13th October, 1847 (Dr. Roughan).—*"Character of fever has been synocha and typhus, the latter preponderated in the proportion of four to one; the synocha was seldom of longer duration than eight days, tendency to relapses about the fifth or sixth day of convalescence.

"A great number of patients, when convalescent for a fortnight, were attacked by typhus fever.

"The typhoid form was complicated with a red measly rash in almost every case. The head was the particular organ engaged."

*Sligo Union, Collooney, 20th November, 1847 (Dr. Freke).—*"Two types of fever (I am informed by Dr. Armstrong) have prevailed in this district, one was a mild inflammatory character, the ordinary duration of which was from eight to twelve days, and was usually followed by a relapse; the abdominal mucous membrane was chiefly engaged, and the most common sequela were anasarca and general debility, with loss of appetite. The second form of fever was of a typhoid character, was much less general than the other, continued its usual course, was not subject to relapses, was frequently complicated with cerebral affections, as also with affections of the chest and abdomen, and demanded stimulating treatment. The other diseases prevalent with fever were dysentery and diarrhoea."

#### PROVINCE OF LEINSTER:

*County Wicklow, Rathdrum Union, Wicklow, 1st September, 1847 (Dr. Courtenay).—*"The fever is of a mixed nature, with several cases of maculæ, the determination usually to the respiratory organs, also in several cases gastritis—sequela in some cases, viz., an attack of small-pox, swelling of the glands, particularly the parotid. Out of one hundred cases, eighty-five relapses."

*County Wexford, Enniscorthy Union, Killeghney, 7th September, 1847 (Dr. Courtenay).—*"The fever is of a gastric character, going on into gastro enteritis, duration from five to fourteen days, and, in most cases, a determination to the abdominal mucous surfaces; in a few cases the chest was the seat of determination. The tendency to repeated relapses is one of the most peculiar features of this epidemic; in every case there were relapses.

"Purpura has occurred as a sequela in a great number of young patients; but dysentery has been, as a general rule, the sequela in all cases."

*County Meath, Trim Union, Trim, 24th September, 1847 (Doctor Freke).—*"The following is a condensation of what I have been enabled to collect from Dr. Lamprey, with regard to the character of the disease:—

"He informs me, that he has observed four distinct types of fever to occur in the present epidemic. The first and most numerous are cases of simple continued, and average fifty-five per cent.; the period of the disease generally lasts nine days, without any marked complication, nor attended with any sequela; great tendency to relapse, which has occurred in nearly all cases under treatment.

"The type of the order of fever observed by Dr. Lamprey to be second in frequency is typhoid, and of 21 days duration, and is liable to relapse; it has occurred in the ratio of twenty-three per cent.

"The third kind of this fever, which has received the name of yellow fever, is characterised by the jaundiced appearance of the skin, gastric and

hepatic symptoms, accompanied by severe head complications, and attended with great perspirations. This type occurs at a ratio of eighteen per cent.

"The fourth type observed by Dr. Lamprey is stated to be the rarest, and to be pure typhus, attended with an ecanthematous eruption and dothi-nuteric symptoms. These cases have occurred only in a ratio of four per cent."

*King's County, Tullamore Union, Tullamore, 21st December, 1847* (Dr. Burton).—"In this district the ordinary fever is spotted typhus, occurring in proportion of five out of seven, and appearing even in the youngest children; duration of attack, twenty-two days.

"A few cases of a mild ephemeral fever, enduring about seven days; complications generally of head, abdomen, and chest. Incidental diseases—dysentery, scarlatina, measles, jaundice, purpura."

*County Kildare, Athy Union, Ballylinan, 4th January, 1848* (Doctor Burton).—"The type of fever was a kind of typhoid, subject to remissions; the average duration of attacks about five days. In one-fourth of the cases spotted fever occurred, averaging twenty-one days.

"Incidental diseases were chiefly dysentery, purpura, and a great deal of scurvy, with some cases of yellow fever, the symptoms of which were great irritability of stomach, prostration of strength, tar-like stools, blue extremities, and loss of heat—in these cases stimulants had little or no effect. These cases were generally fatal."

*County Longford, Granard Union, Granard, 27th May, 1848* (Doctor Courtenay).—"The type of fever prevailing here is of a typhoid character, in fact I have never seen so many cases of a bad maculated character as in this hospital; the duration is from fourteen to twenty-one days, usually complicated with dysentery, the determination being, in most cases, to the alimentary mucous surface; no marked sequela, but a very great tendency to relapse."

#### PROVINCE OF ULSTER.

*County Armagh, Lurgan Union, Portadown, 29th September, 1847* (Dr. Roughan).—"The number of patients in hospital is 268, of these there are at present only four cases of maculated typhus fever; the fever generally ends about the 11th day, and then, in broken constitutions, generally followed either by dysentery or anasarca, or both combined; most all patients relapsed on the fifth or sixth day of convalescence into a fever of shorter duration than the original one. No cases of purpura occurred in the hospital—several in the dispensary practice; six cases of small pox were admitted."

*Counties Antrim and Down, Lisburn Union, Hillsborough, 1st October, 1847* (Dr. Roughan).—"Two forms of fever have been observed in this hospital since its commencement, viz., simple inflammatory fever, and typhus, with a petechial eruption; the former predominated, and was of a very mild character, its duration being from eight to fourteen days; vomiting caused much torment to the patients at the beginning—this symptom was always accompanied by tenderness in the epigastric region, much increased by pressure; relapse occurred in almost every case suffering under this form of disease."

*County Tyrone, Omagh Union, Dromore, 27th October, 1847* (Dr. Roughan).—"Typhus was the character in four-fifths of the fever admitted, all cases accompanied either by petechiæ or maculæ, the latter more

frequent, in the form of large purple spots scattered over the body, arms, and legs, appearing about the fifth day of the fever, and disappearing about the tenth or twelfth; in many cases those spots were followed by an eruption, somewhat like purpura."

*County Cavan, Bailieborough Union, Kingscourt, 30th June, 1848* (Dr. Hill).—"The fever now prevalent is of a mild type, its prominent symptoms being headache, nausea, or vomiting, and acute pains in the limbs, the ordinary duration is from nine to eleven days; but the tendency to relapse is so strong, that very few escape without one or more secondary attacks, and the convalescence is generally tedious; maculated cases are now seldom seen."

We abstain from entering into any observations on the details of treatment for the following reasons:—

To render deductions as to treatment satisfactory, it would be necessary to be assured that the cases compared should be of like character and type—a condition which it would be impossible to attain, as the cases in different institutions, in different parts of the kingdom, must be subject to constantly disturbing causes, arising from varieties in locality, constitution, diet, previous habits and employments, &c., and even from hospital arrangements. Satisfactory results as to varied modes of treatment of most diseases, can only be arrived at by practitioners who, deducing their results from instances under their own immediate observation, can thus assure themselves that their observations are made on cases of the same nature. Moreover, details of medical treatment being matters purely professional, would not, perhaps, properly come within the scope of this report.

It is, perhaps, scarcely necessary to observe, that this epidemic, like all former similar visitations, assumed a contagious character, and that the mortality was great among the upper classes—Clergymen, members of Relief Committees, Inspectors, and Medical Officers, whose duty, or whose benevolence, exposed them to contagion. Of 473 Medical Officers appointed under the Temporary Fever Acts, 36 died during the prevalence of the epidemic.

Emigrants from Ireland carried the disease to Liverpool, and to several ports in North America. Fever thus imported into Canada was, according to reports which have already been published on the subject by the local authorities in that country, exceedingly fatal.

We do not deem it necessary to give any meteorological tables for the period of the epidemic, as those already published in the various scientific journals do not show that there was any remarkable deviation from the ordinary climate of the country during its prevalence.

#### SMALL-POX.

Small-pox prevailed to a considerable degree during the year 1849. In the month of December in that year, a circular was



addressed to all the Medical Officers employed under the Temporary Fever Acts, requesting information as to the number and nature of the cases which came under their notice within the year.

The returns show a total of 7,319 cases for the year 1849; but this scarcely approximates to the real number, for (as observed by some of the Medical Officers)—“relief is not applied for except in very dangerous cases, and the number stated is but a small proportion of the cases that were in the district.”

Again—“it is only where there is immediate danger of life that a medical man is called in, lest he might be obliged to prosecute the inoculator. The people” (in the provinces) “are generally steadfast in the old practice of inoculation of small-pox.”

The increased prevalence of small-pox was, no doubt, attributable, in some degree, to the continuance of the practice of inoculation, but more to the want of an efficient system of vaccination; the Guardians, in many instances, having omitted to make contracts, or having allowed vaccination contracts to expire, thus leaving the poor to the alternative of inoculation as their only protection against small-pox. But as these circumstances did not peculiarly belong to any one year, they do not appear to be in themselves sufficient to account for the increased prevalence of small-pox at this particular time, and still less for its peculiarly malignant character.

It was not in the power of the Medical Officers to give accurate returns of the mortality from small-pox; but their accounts nearly all agree in representing the disease as having generally presented a confluent character and malignant type.

The following are returns from hospitals in Dublin:—

FEVER HOSPITAL and HOUSE of RECOVERY, CORK-STREET.

Statement of the number of cases of Small-Pox received into Hospital during the past eleven years, distinguishing the number of Deaths, and whether Vaccinated or not Vaccinated.

Years.	Admitted.	Vaccinated.	Not Vaccinated.	Died.
1840	28	9	19	2
1841	4	1	3	—
1842	33	13	20	5
1843	12	2	10	2
1844	2	1	1	1
1845	90	15	75	19
1846	17	2	15	3
1847	10	1	9	2
1848	28	5	23	6
1849	105	19	86	30
1850	47	9	38	10

## HARDWICK FEVER HOSPITAL.

Statement of the number of cases of Small-Pox received into Hospital during the past eleven years.

Years.	Admitted.	Vaccinated.	Not Vaccinated.	Died.
1840	-	-	-	-
1841	1	-	-	-
1842	23	-	-	5
1843	17	-	-	4
1844	6	-	-	-
1845	70	-	-	16
1846	39	-	-	9
1847	20	-	-	8
1848	47	-	-	9
1849	106	-	-	46
1850	99	38	61	31

No account of the disease kept prior to 9th September, 1841.

The particulars of Vaccination commenced to be taken in the month of February, 1850.

## FOOD.

The failure of the potato crop fell with peculiar severity on the laboring class of Ireland—the peasantry generally depending for their food not on money-wages, but on potatoes raised by their own labor—for which there was otherwise little employment at certain seasons of the year. Hence, on the failure of the potato crop, the difficult problem presented itself, of not only furnishing food to the poor at the lowest price, but of providing them with employment, in order to enable them to purchase it. The reports of the Relief and Poor Law Commissioners show the gigantic efforts made to meet those difficulties.

We have, however, only to deal with the effects of the failure of the potato crop in a dietetic point of view, and its bearing on the production of fever; and we are of opinion that even had a full supply of grain food been obtainable instead of the potato, there would still have followed a considerable amount of disease. The following are briefly the grounds on which we advance this opinion:—

Chemical investigation has shown that the potato has a peculiarity distinguishing it from almost all other vegetables and kinds of grain used as human food. Although affording an inferior nutriment in proportion to the bulk consumed, from its consisting of about three-fourths water, it nevertheless contains in its composition nearly all those elements of nutrition that exist separately in most other vegetables and grain, and are, therefore, only to be obtained from most other articles of food by combining together different kinds. Hence, the potato can be used singly for support and nutrition; while in using other vegetable products there is required a combination of va-



rious kinds to furnish the varied elements that are necessary for the growth and support of the human body. In ignorance of this, rich and poor alike fell into error, in attempting to substitute some *one* article or other of food, as a sufficient equivalent in itself for the potato. The poor, forced by necessity, attempted to support themselves on whatever grain they could obtain; the rich, moved, by the best motives, made the greatest exertion to substitute for the potato some other vegetable, such as they were led to believe furnished the staple food of the people of other countries. Rice was one of the main articles which presented itself; and the popular, but erroneous idea, that it furnished the sole article of food for whole nations, led to an attempt to make it a substitute for the potato. Rice *alone*, however, is not anywhere the sole support of any portion of the human race. Experience or instinct has taught those who use it as a chief article of food that, of itself, it is not adequate to support life, and hence, there is always consumed with it in those countries where it is generally used, oil, dal, or some other vegetable, seed or grain, meat or fish, in order to add to the rice such of the elements of nutrition as it does not in itself contain. Thus, even if a full supply of grain food had been obtainable, the great bulk of the people would have consumed it, ignorant of the need of those combinations that are requisite in its use, and disease, to a considerable extent, would have resulted, until experience and information had corrected the error. A frequent mistake connected with the introduction of rice was the supposition that the bulk acquired by boiling afforded an indication of the quantity of nutriment contained in such bulk. With the view of correcting this error, we issued several communications on the use of rice and other articles of food, and the following extracts from some of those communications will explain our views on those points:—

“The Board of Health cannot hesitate to assure the Relief Commissioners, that rice, instead of being superior, is much inferior to Indian corn meal in nutritious qualities.

“It is true that rice, by steeping and boiling, may be made to furnish a larger bulk of apparently solid food than will be furnished by an equal quantity of Indian corn, and hence has probably arisen the supposition of its being more nutritious; but the bulk thus obtained is deceptive as to the quantity of nutriment afforded. Rice contains about eighty-five parts in every 100 of starch; a given quantity of it will, by steeping and boiling, absorb a very large proportion of water, and will swell into a large and apparently firm mass; but this mass will contain a very small proportionate quantity of nutriment. A very simple experiment will satisfactorily illustrate this—one ounce of common starch boiled in the ordinary way will form, with a pint of water, a firm mass, which, from its apparent consistency, will seem to be good substantial food; but the bulk thus formed, it is obvious, contains very little nutriment. In like manner of rice—one pound of it may be made to form, with water, a starchy mass of five or six pounds weight; but the produce, as in the experiment of the starch, is bulk, without equivalent nutriment. The Board of Health are anxious that their ob-

servations on this subject should be clearly understood and widely disseminated, as the error is very generally prevalent of supposing, that in using rice or other similar substances, an amount of nutriment is afforded equal to the bulk gained. The Board of Health do not at all object to the use of rice as food ; on the contrary, they highly approve of it, provided it be furnished in sufficient quantity.

"The Board of Health are fully aware how necessary, and how pressing, at the present time, is the exercise of the strictest economy ; but they are also convinced, that if the use of a diet be permitted, containing too large a proportion of fluid, deficient in the due quantity of nutritious elements, and deriving its solidity principally from the presence of starch, the result must necessarily be, in those living on it, debility of constitution with consequent inability to resist disease, and ultimately, increased expenditure in the cost of relief, instead of saving.

"For these reasons, the Board of Health deem it important that the principle laid down in their previous communication of 11th May, should be strictly adhered to, viz.:—that rations should be given out cooked, and in as solid form as possible, and that they should be estimated, not by the bulk when cooked, but by the rule that each cooked ration should contain the equivalent of one pound of raw meal, the quantity originally sanctioned by the Relief Commissioners and the Board of Health."

It was also frequently proposed by Relief Committees and Boards of Guardians, to lessen the rations when oatmeal was substituted for Indian meal, the former being erroneously supposed to be more nutritive than Indian meal. The two grains, however, differ so little in nutritive qualities, that the Board decided that rations, whether of oatmeal or Indian meal, should be of the same weight.

Similar difficulties to some of those noticed in respect to the use of rice, existed in the attempts to substitute either beans or Indian corn as the sole substitute for the potatoes, viz., that neither of those articles of itself can be used like the potato as the sole article of support. Another error at the time of the failure of the potato, and the most generally diffused, was in the attempt to substitute for the potato itself what was very generally, but erroneously, called "potato flour," which was obtained in large quantities from rotted potatoes. This so called "potato flour" was, however, not flour in the proper sense of the word as applied to wheat flour, for it did not contain the elements of the potato, but consisted wholly of starch or fecula, and was quite unfitted to support health or even life for any considerable length of time. It was as erroneous to consider this starch as equivalent to the potato, as it would be to consider wheaten starch as equivalent to wheaten flour.

Even among tradesmen and laborers on railways, who earned sufficient wages to buy good food, the result of the loss of the potato was seen in the production of scurvy or purpura, in consequence of their being unaware that variety of food was necessary to form healthy blood. Their diet was most frequently white bread and coffee, with sometimes animal food

but yet, these articles not containing sufficient variety of elements, scurvy was the result.

The same effect was seen in some public schools from similar causes. The following is an extract from a circular of the Board of Health of the 21st June, 1847, on this subject:—

“While on the subject of diet, the Board of Health deem it of importance, through the medium of the Relief Commissioners, to draw the attention of relief committees, and of the people generally, to the fact, that a form of disease, now very prevalent among the people, resembling in many particulars sea scurvy, is connected with or dependent on a defective nutrition, arising *not from deficiency of quantity, but from deficiency of quality or variety* in the food. The potato, although not containing a large proportion of nutriment, is remarkable as containing within itself all the varied elements necessary for forming healthy blood—no one of the substitutes for it, with the exception of oatmeal, possesses this remarkable property; and hence, the use of more than one article of food is necessary, in order to secure a sufficient supply of the varied elements of nutrition, and thus to obviate the form of disease referred to.

“With this principle in view, the Board of Health, as the season of the year now gives facilities for it, strongly recommend the admixture of onions, leeks, scallions, or shallots, in cooked meal rations or stirabout, which will both act as condiments, and will also furnish some of the elements of nutrition essential for forming healthy blood. Onions are so rich in nutritive qualities, that, as a mere article of food, one ounce and a half may be considered as equivalent to about one ounce of meal. On every opportunity, the importance to health of using vegetables, such as carrots, parsnips, turnips, and cabbage, along with meal, should be impressed upon the people.

“It may not, perhaps, be out of place in these observations, to make the people generally acquainted with the high nutritive qualities of beans and peas, which, weight for weight, contain from ten to twelve times as much nutriment as potatoes. In those countries where rice is very extensively used as the food of the people, experience has taught them that rice by itself has low nutritive qualities; but that the deficiency can be supplied by adding about two ounces of beans, peas, or lentils, to each pound of rice. It must, however, be remembered, that with beans or peas, some other vegetable food must be used, as, although possessing in a high degree some of the most important elements of nutrition, they nevertheless do not contain a sufficient variety of other nutritive elements to support the human body in health.”

Another cause that existed, adding much to the production of diseases among the poor, was the use of raw or badly-cooked food.

This engaged the earliest attention of the Commissioners.

On the 10th March and 11th May, 1847, we addressed communications to the Relief Commissioners, of which the following are extracts:—

“The Board of Health, however, suggest, that in all instances where practicable, the food should be given out in a cooked form; as food, however good in itself, will, if not sufficiently cooked, not afford its full supply of nutriment, and it will, moreover, predispose to attacks of dysentery and

diarrhœa, now so prevalent through the country. They likewise suggest that the food given out should be varied occasionally—as for instance, on one day, that bread rations be given ; and on another, soup and bread ; or meal and rice porridge, with bread, &c.

“The Board of Health now desire to draw the attention of the Relief Commissioners to the communication from the Board of Health of the 10th March, in which they recommend, that ‘in all instances where practicable, the food should be given out in a cooked form.’ They are now, from reports which have reached them, anxious to urge on the Commissioners the necessity of taking measures to have this recommendation acted on, without exception, in all instances. The Board of Health feel it only necessary to observe, that they fear, unless the principle be fully carried into effect, of giving out the food only in a cooked form, there will be always both an abuse and a serious evil of another kind to contend with. The abuse is, the sale of raw meal, for which purchasers are always to be found, to whom even the poor requiring the food for themselves or family will dispose of it for money, tea, or tobacco ; and the serious evil is, the consumption of meal or rice, but more particularly Indian meal, in a raw or badly cooked state, which will predispose to, and aggravate dysentery and diarrhœa, already so prevalent through the country.”

The Board received from all parts of the country satisfactory communications of the improvement produced in the health of the people by the issue of well-cooked food. The following are extracts from some of the communications :—

“Those districts in which ‘eating houses’ are in full operation, show a great improvement in the sanitary condition of the people—many bad cases of fever and dysentery have recovered from the use of the food given them out of these sources of relief.”

“Fever and dysentery are of a much milder form than hitherto, and the deaths very few in comparison, especially in those districts where cooked food has been adopted for any length of time.”

“There has been a marked improvement in the health of the people generally since relief has been administered in food, particularly where it has been cooked. The prejudice which was strong against cooked food at the commencement has gradually yielded ; very many of the people admit they prefer it to meal. There can be no doubt that it has had a marked effect in checking bowel complaints. The districts most free from fever are those where cooked food has been the longest in use.”

“It is a remarkable fact, that in those divisions where cooked food is not used, fever and dysentery are, or have been, most rife.”

“Three weeks ago, when fever was rather abounding, the Relief Committee took up the idea of having fever sheds built ; but since cooked food has been given to the people, fever has, under Providence, astonishingly declined.”

The connexion between the scarcity of food and the prevalence of fever will be seen from the following table, which gives the prices of wheat, oats, oatmeal, and potatoes in the Dublin market, in periods of quarters, for four years, commencing in 1845, and terminating in 1850 :—

	1845.				1846.				1847.				1848.				1849.				1850.				
	January.	April.	July.	October.	January.	April.	July.	October.	January.	April.	July.	October.	January.	April.	July.	October.	January.	April.	July.	October.	January.	April.	July.	October.	
Wheat,	s. d. 25 0	s. d. 25 0	s. d. 26 6	s. d. 29 3	s. d. 30 0	s. d. 30 0	s. d. 30 0	s. d. 32 0	s. d. 41 0	s. d. 46 0	s. d. 39 0	s. d. 23 0	s. d. 20 4	s. d. 27 4	s. d. 30 6	s. d. 50 10	s. d. 24 7	s. d. 24 5	s. d. 23 3	s. d. 19 11	s. d. 21 3	s. d. 21 11	s. d. 21 1	s. d. 21 0	per barrel (20 stone.)
Oats,	11 9	11 3	12 0	12 3	13 0	14 6	14 0	15 6	21 0	21 6	18 0	11 9	11 8	10 10	12 2	11 4	10 2	11 5	13 3	9 10	9 10	10 1	11 0	8 6	per barrel (14 stone.)
Oatmeal,	12 3	12 3	12 0	13 0	15 9	16 0	16 0	19 6	23 0	24 6	20 0	15 8	13 3	11 5	12 5	14 6	11 6	11 9	13 4	10 6	10 10	10 0	10 10	10 0	per cwt.
Potatoes,	2 0	2 5	2 4	2 0	3 6	4 6	5 6	5 9	7 0	8 6	12 0	6 0	7 6	7 6	8 0	5 0	6 0	7 0	11 6	3 3	4 6	4 6	4 6	4 0	per cwt.



It is impossible not to be struck with the coincidence between the scarcity and consequent high price of potatoes and the prevalence of fever:—

	s.	d.	
In 1845, potatoes averaged	2	2	per cwt.
In 1846, „ „	4	10	„
In 1847, „ „	8	4	„
In 1848, „ „	7	0	„
In 1849, „ „	6	11	„
In 1850, „ „	4	4	„

In 1845 there was no epidemic. In 1846 the scarcity was first felt, and fever began to show itself, and as prices still continued to rise in the winter of 1846, and spring of 1847, the effects of want of food were seen in an alarming increase of fever, and during the years 1847 and 1848, and greater part of 1849, the prices continued so high as to deprive the poor of their accustomed food, and notwithstanding all the long continued and benevolent exertions of Government and individuals, an epidemic of unparalleled severity and extent continued its ravages.

The number of patients admitted into temporary fever hospitals, in

1847.....was.....	95,890
1848..... „ .....	110,381
1849..... „ .....	87,135
1850..... „ .....	39,056

The price of potatoes, although having fallen considerably in 1850, still averaged, it will be observed, double the price of 1845; but the injurious effects that would otherwise have still followed from the continued comparative scarcity and high price of potatoes, were counteracted to a very considerable degree by the cheapness of oatmeal, which fell, in the autumn of 1849, to 10s. 6d. per cwt., and averaged during 1850, only 10s. 5d. per cwt. This was little more than double the price of potatoes, and as oatmeal in weight for weight contains above four times as much nutriment as potatoes, the peasantry, whenever they were by money-wages enabled to purchase oatmeal, obtained at little more than double the price of potatoes, a food that contained more than quadruple nutriment, which was a benefit equivalent to a reduction of about one-half in the price of potatoes. In the autumn of 1850, a cwt. weight of oatmeal could be purchased for 10s., equivalent in nutrition to more than four cwt. of potatoes, which would cost about 18s. But for this lowered price of oatmeal, it seems certain that the same amount of distress and disease would have continued to prevail in 1850 as in previous years. The people were not slow in discovering, that the advantage in economy and nutriment was on the side of oatmeal. In a communication received from an



intelligent Inspector under the Drainage Commissioners, he observes—"As to potatoes, they are quite too expensive for ordinary food at present (February, 1851); even farmers who have large quantities of them prefer (through, however, motives of economy only) selling them, and living, with their servants, on oaten and Indian meal." It has often been desired, that the people of Ireland could be induced to turn from the potato to grain as their food, as tending to produce improvement in their habits, and as rendering them less liable to suffer from periodic famines. All attempts to effect this have hitherto failed. However, the knowledge that they have now acquired of the very superior nutritious qualities of oatmeal, and its price continuing to bear such a relation to the cost of potatoes, as to render its consumption often more economical than that of the potato, will, it would seem to us, eventually and certainly lead to the desired end.

HOSPITAL ARRANGEMENTS—VENTILATION—EXPENSES OF  
PATIENTS.

It has been already observed, that of 576 applications from local bodies for hospital accommodation, 203 were refused, and 373 were granted; but even this number was far above what would have been requisite if the Board of Health had been able to carry out its views. The Board were most anxious in the outset, to establish hospitals only in suitable central situations, which hospitals might then, from time to time, have been enlarged or contracted as required, and the cost of erecting additional hospitals with all the expenses consequent thereon might have been obviated. Various obstacles, however, prevented this plan from being carried out. The amended Fever Act of April, 1847, clause 2, authorized the Commissioners of Health to issue certificates requiring hospital relief to be afforded in electoral districts; but only according as the necessity for it arose in each electoral district; the Board was thus precluded from directing hospitals to be erected in the first instance in central situations. Even where several electoral districts were so circumstanced that they might have been united with great advantage for the purpose of giving combined hospital relief, the several relief committees frequently refused to unite; in some instances, from a desire to have each a separate hospital; in other instances, from a reluctance to incur the expense of affording any hospital relief whatever. The consequence was, that notwithstanding the advice and remonstrances of the Board of Health, hospitals were established in much greater numbers than would have been sufficient, and expenses were thus incurred that might have been avoided. In some unions, as many as ten hospitals were erected; in others, eight; and, in very many, from four to seven; the hospitals, in some cases, not being more than

two or three miles asunder. The bad effects of this were felt not only in the outset, by the erecting and maintaining of an unnecessary number of small hospitals with their separate staffs, but were continued when the epidemic had considerably declined; for it was then often found impracticable to reduce them in proportion to the decline of the epidemic, as they were frequently so inconveniently and unsuitably located, that although there might be several hospitals in one union, no one hospital was sufficiently central in locality to serve for the accommodation of two or more electoral divisions; and thus, during the decline of the epidemic, several small hospitals, each burthened with a staff sufficient for a large institution, were necessarily continued at an unavoidable expense. The experience of the late and of former epidemics shows that it is hopeless to expect that fever, once having made its appearance as an epidemic, can, by any sanitary precautions, be limited to any particular district. It will, therefore, be found most economical, should a similar visitation again take place, at once to provide hospital accommodation in central situations—such hospital accommodation will be available for large districts, and can be contracted or enlarged according to necessity. The multiplied and unnecessary expenses attendant on the maintaining numerous small hospitals would be thus obviated.

Representations were, at different times, made to us from various Relief Committees, requesting our sanction to proposals for providing attendance on fever patients in their own homes, and supplying them there with medicine and nutriment. These we always discountenanced, on the grounds that it would be quite impossible, under any management, to treat cases of fever with advantage to the sick, or with a due regard to economy, in the houses of the poor, often scattered over an extensive district; while there was, moreover, the very serious objection to the proposal, that the poor, ill of fever, lying with their families in ill-ventilated cabins, would propagate and indefinitely extend the disease. In a few instances, where the plan was introduced by Relief Committees, it was abandoned as being ineffective, and yet more expensive than hospital relief.

As in many situations in the country, no buildings could be procured adapted for the purpose of fever hospitals, and as it became necessary to increase the accommodation in previously existing hospitals, Mr. Wilkinson, Architect of the Poor Law Commission, furnished the Board (in accordance with their suggestions) with plans for the construction of fever sheds and wooden bedsteads of a very simple and economical construction, which were found fully to answer the purpose (see appendix A, Nos. 2 and 3).

It was a matter of great importance to furnish some simple and effective plan of ventilation for fever hospitals, and after many trials the following has been found to answer the pur-

pose. A sheet of zinc or tin plate is punched (not drilled) with holes one-twelfth-inch diameter, and half an inch apart—thus prepared, it is inserted in place of a pane of glass in every window, or every alternate window, as required, care being taken that the side on which the burrs project is turned to the weather so as to throw off the rain. Neither wire-gauze nor perforated zinc of the ordinary kind will be found suitable, as both permit blasts of cold air and rain to pass through them, and the former is liable after some time to become choked with dust. Those who have had practical experience of the importance of ventilation to the sick, and of the difficulty of maintaining it, will appreciate the value of a simple plan that combines utility with cheapness, and which cannot be interfered with by the inmates of the hospital. In the appendix (Ap. A., No. 13) will be found the general order of the Commissioners for the internal regulation, attendance, and dietaries of fever hospitals.

Proposals occasionally came before us for the employment of various disinfecting agents, as a means of destroying contagion, and thus destroying the epidemic. We did not feel ourselves authorized to sanction any expense in such trials; experience and experiment have fully shown that chemical agents may deodorise, but fail to disinfect, that the most fatal epidemics are often generated and extended in what (to our senses, and to all chemical examination) would seem to be the purest air, and that the most offensive odours are often habitually inhaled with impunity.

It is also to be remembered, that none of the supposed disinfectants have the power of restoring oxygen to the air; it is evident, therefore, that disinfectant substances which deodorise, must still leave the air, as far as regards its proportion of oxygen, as unfit for the support of animal life as before, while the very destruction of the bad odours by any other means than by a free circulation of fresh air, would rather tend to divert attention from the only effectual purification of the wards of the sick—viz., by the free, and constant circulation of fresh air, in our opinion, the only effectual method of purification. These observations, however, are by no means intended to depreciate the use of charcoal, chlorides of lime and zinc, and of other deodorising substances for the destruction of the bad odours arising, during the emptying of cess-pools, or during the temporary removal of deposits from sewerage.

The financial arrangements of the fever hospitals were not under the superintendence or control of the Board of Health, having been managed under the 10th Victoria, cap. 22, by the Relief Committees, and under the 11th and 12th Victoria, cap. 131, by the Poor Law Guardians. The Board of Health, however, from returns furnished to them, made a report to Parliament in 1850, showing the cost of support of patients in temporary fever hospitals in the year 1849 (Parliamentary Paper, 442). The returns of expenditure were received from

the clerks of the unions in which the hospitals were situated, and this return shows that the average weekly cost, including salary of Medical Officer, was 4s. 0½d. per patient.

#### CHOLERA.

Cholera having made its re-appearance in Europe in 1847, and continuing to advance in 1848 towards this kingdom, your Excellency was pleased, by an order in Council, of the 4th of October, 1848, to direct that we should carry out the provisions of the Nuisances Removal and Diseases Prevention Act, with reference to means for the prevention, as far as possible, of the predisposing causes of the disease, and for the medical care of the poor who might be attacked by it.

With the view of promoting the early adoption of precautionary measures, and of having the necessary arrangements perfected in due time, we issued the following circular on the 1st September, 1848 (see appendix B, No. 1), previously to the appearance of the epidemic in this country, and having carefully watched the progress of the disease, and deeming that the time had at length come when it was advisable to issue the requisite legal authority under our hands, in accordance with the provisions of the act referred to, we issued, on the 7th December, 1848, the directions and regulations for carrying out the provisions of the act (see appendix B., No. 2).

The following table is so arranged, from reports forwarded to the Board, as to show the rise, progress, and decline of the epidemic:—

SUMMARY of Returns of the number of cases of Cholera reported to the Central Board of Health, distinguishing the sexes, ages, premonitory symptoms, and date of the first and last case.

1848.	1849.												1850.							
	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.
55	204	891	3,292	8,946	11,129	5,568	4,256	4,905	4,144	631	188	179	339	396	297	86	172	45	4	1

Total number.		Sexes.		Ages.				Hours in previous Diarrhoea.						Date.		
Cases.	Deaths.	Males.	Females.	Up to one year.	Above one, under seven.	Above seven, under fifty.	Fifty and upwards.	None.	2 hours.	2 to 6.	6 to 12.	12 to 24.	24 to 48.	Above 48 hours.	First case.	Last case.
45,698	19,325	20,001	25,697	495	4,081	33,464	7,728	14,036	859	3,671	5,332	7,543	5,616	7,941	1848 4th Dec.	1850 4th Aug.



The rate of mortality on the whole number of cases was forty-two one-fifth per cent.

This visitation was remarkable for the large number of children attacked. From the returns, it appears, that of the total number reported (45,698), the number of children attacked under seven years of age was 4,506.

It also appears that in this epidemic the first or diarrhoea stage of the disease was not as distinctly marked as in former epidemics. Of the total number, 45,698 cases, 31,162, were preceded by a premonitory stage of diarrhoea, of varying duration; while in 14,536 cases, or nearly one-third of the whole number, the disease at once showed itself in the stage of collapse, without any premonitory symptoms.

The question of the influence which contagion may be supposed to exercise in the propagation of cholera is of the utmost interest, involving as it does the subject of preventive measures.

We feel ourselves bound to state that the subject is still enveloped in great obscurity. Differences of opinion still exist as to the contagious or non-contagious character of the disease; but the weight of evidence is decidedly in favor of the opinion, that contagion has little, if any, influence in its propagation. Individual cases sometimes occur, which would seem to lead distinctly to the conclusion that personal infection did occur, but it must be always remembered that persons in connexion with the sick are equally with all others liable to be affected by the epidemic, and it becomes a matter of impossibility, under such circumstances, to determine in any given case whether the attack has proceeded from contagious or from epidemic influence; but this objection does not apply to cases in which the disease has originated without previous exposure to contagion. If it can be established that the disease has appeared where contagion could not originate it, and if it can also be shown that the disease has not appeared or has not spread in circumstances in which there was full exposure to contagion, two points which we believe will be fully established in the following report, the conclusion will then, we think, be satisfactorily established, that contagion is an element of little, if any, influence in the spreading of the disease.

The following instance of the first appearance of the disease in the Convict Depot, Smithfield, Dublin, appears to prove satisfactorily that the disease may originate without the agency of contagion:—

*Copy of minute of investigation held by Commissioners of Central Board of Health, on Sunday, February 25th, 1849, at Smithfield Depot for Convicts, Dublin, to inquire into the case of John Mohan, convict, reported to have died of Asiatic Cholera.*

“John Mohan, convict, at 64, committed January 7th, 1848, never in hospital until last illness; taken ill Saturday, 24th February, 1849, at 3 o'clock, P.M., with purging, cramps in abdomen and legs, rice



water vomiting, and stools, surface blue and cold, pulse almost imperceptible; seen by Surgeon Rynd at half-past four o'clock; six o'clock, P.M., again visited—symptoms slightly alleviated. Half-past ten, P.M., (next visit, when Surgeon Rynd remained till twelve o'clock)—Moribund; died at half-past three o'clock, A.M., 25th; duration of illness, twelve hours.

"Previously to his illness, Mohan had been under the same circumstances as all the other convicts; had no intercourse whatever with any person from without, nor with any within the walls except with his fellow-prisoners, and with the turnkey, whose only communication with him was unlocking the door of his cell in the morning, and locking his cell door at night. The turnkey is in perfect health.

"No admission of prisoners since 11th January until 20th February, when ten prisoners were admitted from King's County, all in good health on admission, and who remained in good health; these prisoners are in a different part of the building, and have had no communication with the deceased, as they do not belong to the same class of prisoners.

"There are two night watchmen on duty, who go round the cells constantly during each night, and who instantly report any case of illness among the prisoners to the hospital attendant, who is provided with medicines and directions for an emergency.

"FRANCIS RYND,

"Medical Superintendent of Convicts.

"JOHN LAMB,

"Governor."

A second case occurred on the 27th February, and seven new cases on the following day, the 28th, when the disease suddenly disappeared.

It is important to state, that "the depot" which was constituted for the accommodation of 200 prisoners, contained at the breaking out of the disease above 300 inmates (3 being lodged in each cell instead of 2). On the 27th February 100 prisoners were removed to Newgate; from that day no new case occurred in the depot or in Newgate, where the inmates of the convict depot were received.

In the Hibernian School, Phœnix Park, an institution for the reception and education of the children of soldiers, the disease suddenly commenced on Wednesday night, 12th September, 1849, and continued until 3 o'clock on the following Friday, the 14th, when a perfect cessation seemed to take place. Within that period 69 children were attacked, of whom 21 died. The disease then became much milder, there being only one additional death up to the 9th October, when the disease disappeared.

There were in the school at the onset of the attack, 303 boys, 43 girls. The total deaths were 21 boys, 1 girl.

This school is remarkably well situated, on very high ground over limestone gravel, and with a considerable fall to the river

Liffey, which runs with a rapid stream over a gravelly bed, at the distance of 460 yards from the school, and 92 feet below the level of the parade or play-ground. The dormitories are large, airy, well ventilated, and not crowded; and the children, prior to the attack, were remarkably healthy, the daily average in hospital having been only 7. The children of the Hibernian School may be considered to have been almost as perfectly protected against contagion as the convicts in Smithfield depot. The attack, progress, and duration of the disease in these two instances present, in our opinion, the characters of an epidemic, not of a contagious disease.

There is another very remarkable circumstance to be noted in connexion with the occurrence of cholera at the Hibernian School. The village of Chapelizod is situated on the banks of the Liffey, nearly at the point where the river approaches nearest to the Hibernian School, and is very much below the level of the School, the river being, as before observed, 92 feet below the level of the play-ground of the school. It is the seat of a flax-mill, and is densely inhabited by a poor population of 1,575 persons. This village, from its situation on the great western road, and from its proximity to Dublin, is more than usually exposed to the admixture of strolling mendicants and poor travellers, who might naturally be supposed to carry contagion with them; yet while the Hibernian School, containing about 400 inmates, placed apparently in the most favorable locality, suffered so much, two cases only occurred during the whole visitation of the epidemic among the ill-circumstanced, poor, and crowded population of the village of Chapelizod.

In the small village of Castleknock, about two miles from Dublin, and about one mile from the Hibernian School, also in a healthy, high, and dry locality, containing about 200 inhabitants, the disease suddenly broke out at 2 o'clock, P.M., on Saturday, the 25th of August, 1849, and between that hour and 2 o'clock, A.M., on Monday, 27th, a period of 36 hours, 25 deaths occurred. During the remainder of the 27th no new case appeared; occasional cases appeared up to 19th September, when the disease totally disappeared.

Maynooth and Kilcock are two towns in the County of Kildare, on the great western road, of about equal size, each containing about 2000 inhabitants, and about four miles asunder, both great thoroughfares. In respect of inhabitants, as to mode of living, habitations, and employment, there seems to be a perfect similarity, or if there be any difference Maynooth has the advantage, but the difference in their liability to cholera is remarkable. From the 7th June to the 3rd October, 1849, 141 cases occurred in Maynooth—47 deaths—while not a single case occurred among the inhabitants of Kilcock. One case only occurred in the town, that of an officer of the railway, who travelled down in the train from Dublin. It is also remarkable, that during the previous outbreak of 1832, Kilcock was also free from any

indigenous case; the only instance of cholera that then occurred was in the person of a visitor from Dublin to the races, while in 1832 there were in Maynooth 231 cases, 33 deaths.

In the County Meath similar remarkable circumstances occurred in reference to the towns of Kells, Navan, and Trim. In Kells, containing 4,000 inhabitants, there occurred between the 24th June and 16th August, 1849, 330 cases, 156 deaths. In Navan, containing about 5,000 inhabitants, there occurred during the whole time of the visitation of cholera only 38 cases, 16 deaths. In Trim, containing 2,000 inhabitants, only six cases occurred; of these, one was a gentleman who "was sick on his arrival. The second, a poor labourer, who came sick into town from a distance of four or five miles. The other four were among residents, at different periods in the months of July, August, and September, and in every instance confined to the first attacked, although in some of the cases the exposure to contagion was most perilous." Instances like these might be multiplied from almost every quarter of Ireland; but those adduced appear to us sufficient to establish the two important points already adverted to, viz., that cholera originates without contagion, and that it is not seen to spread where there is continued exposure to contagion. Fever or other diseases universally admitted to be contagious, do not exhibit the singular feature of visiting the dense population of some one town with such severity, and passing by almost untouched the population of a neighbouring town, in every respect apparently similarly or worse circumstanced.

We are gratified to be thus able to confirm by facts the view put forward by us in our Circular of the 1st September, 1848 (see Appendix B, No. 1), as to the little apprehension to be entertained of the contagiousness of cholera; views which must so materially tend to procure for the sick, from their relatives, the requisite attention which otherwise might not be afforded through unfounded apprehension of infection.

The following table gives a list of all the Towns of Ireland containing 2,000 inhabitants and upwards, distinguishing those from which cases of cholera were reported, those from which there was no report of its appearance, and showing the number of cases, the number of deaths, and the date of the first and last case in each town:—

TOWNS OF IRELAND containing 2,000 inhabitants and upwards, distinguishing those from which cases of cholera were reported, those from which there was no report of its appearance, and showing the number of cases, the number of deaths, and the date of the first and last case in each town:—

	Name of Town.	Total Population.	Cholera.		Rate of Mortality per cent.	Date.	
			No. of Cases.	No. of Deaths.		First Case	Last Case.
PROVINCE OF ULSTER.							
County Antrim,	Belfast,	63,625	2,705	969	35.8	4th December, 1848.	12th December, 1849.
"	Carrickfergus,	9,379	None.	—	—	—	—
"	Larne,	3,345	None.	—	—	—	—
"	Ballymena,	5,549	141	54	38.3	19th March, 1849.	24th April,
"	Antrim,	2,645	179	24	13.4	26th February,	16th May,
"	Lisburn,	7,524	565	196	34.6	24th January,	27th June,
Armagh,	Armagh,	10,245	154	73	4.74	27th February,	2nd May,
"	Lurgan,	4,677	369	116	31.4	28th March,	7th September,
"	Portadown,	2,505	42	20	47.5	29th January,	29th August,
"	Newry,	13,227	139	62	44.6	19th February,	9th July,
Cavan.	Cavan,	3,749	None.	—	—	—	—
"	Cootehill,	2,425	None.	—	—	—	—
"	Belturbet,	2,070	None.	—	—	—	—
Donegal,	Ballyshannon,	3,513	None.	—	—	—	—
"	Letterkenny,	2,161	None.	—	—	—	—
Down,	Drogheda,	4,866	136	72	52.9	31st July,	18th September,
"	Newtownards,	7,621	115	34	29.5	20th February,	26th March,
"	Banbridge,	3,324	None.	—	—	—	—
"	Donaghadee,	3,151	63	30	47.6	13th January,	9th September,
"	Bangor,	3,116	29	19	65.5	6th March,	5th October,
"	Rathfriland,	2,183	None.	—	—	—	—
"	Portlerry,	2,107	None.	—	—	—	—
"	Dromore,	2,110	5	3	60	14th June,	29th June,
Fermanagh,	Enniskillen,	5,686	None.	—	—	—	—
Londonderry,	Londonderry,	15,150	58	14	24.1	10th January,	21st March,
"	Coleraine,	6,255	3	1	33.3	10th December, 1848.	24th April,
"	Newtownmavady,	3,101	2	2	100	3rd July,	7th July,
Monaghan,	Monaghan,	4,130	130	59	45.3	10th February,	27th April,
"	Clones,	2,877	None.	—	—	—	—

" Tyne,	2,134	None.	167	50.1	17th July, 1849.	19th September, 1849.
" Strabane,	4,704	None.	22	56.3	17th August,	29th March, 1850.
" Dungannon,	3,801	None.	1,664	43.6	30th January,	17th November, 1849.
" Cookstown,	3,006	None.	22	19.8	25th August,	18th October,
" Omagh,	2,947	None.	18	35.3	19th May,	30th "
			68	38.6	5th September,	28th "
			37	42	4th May,	2nd "
			1	50	12th September, 1849.	27th September,
			45	35.7	12th August,	14th October,
			11	40.8	25th June,	29th September,
			47	38.3	7th June,	3rd October,
			529	50.5	6th February,	28th "
			31	35.2	23rd "	29th June, 1850.
			7	50	6th "	22nd March, 1849.
			10	91	17th July,	25th November,
			114	65.1	23rd May,	12th August,
			263	43.5	10th May,	23rd July,
			20	32.2	"	12th June,
			145	60.4	13th "	21st August,
			73	32.5	"	24th July,
			20	16.6	11th April,	10th October,
			72	33.6	2nd March,	27th May,
			16	42.1	2nd April,	2nd August,
			156	47.2	24th June,	16th "
			5	88.3	24th July,	10th September,
			—	—	—	—
PROVINCE OF LEINSTER.						
County Carlow,	10,409	333	167	50.1	17th July, 1849.	19th September, 1849.
" Carlow,	3,097	None.	22	56.3	17th August,	29th March, 1850.
" Tullow,	2,225	39	1,664	43.6	30th January,	17th November, 1849.
" Bagnalstown,	2,929	111	22	19.8	25th August,	18th October,
" Dublin,	2,372	51	18	35.3	19th May,	30th "
" Balbriggan,	3,169	176	68	38.6	5th September,	28th "
" Blackrock,	7,229	88	37	42	4th May,	2nd "
" Bray,	2,290	None.	1	50	12th September, 1849.	27th September,
" Kingstown,	2,429	2	45	35.7	12th August,	14th October,
" Ranelagh,	2,417	136	11	40.8	25th June,	29th September,
" Rathmines,	4,698	27	47	38.3	7th June,	3rd October,
" Skerries,	3,571	None.	529	50.5	6th February,	28th "
" Athy,	2,129	141	31	35.2	23rd "	29th June, 1850.
" Naas,	23,625	1,043	7	50	6th "	22nd March, 1849.
" Maynooth,	2,348	14	10	91	17th July,	25th November,
" Kilkenny,	6,343	175	114	65.1	23rd May,	12th August,
" Freshford,	6,336	604	263	43.5	10th May,	23rd July,
" Thomastown,	2,827	62	20	32.2	"	12th June,
" Craginamamagh,	3,106	None.	145	60.4	13th "	21st August,
" Tullamore,	2,408	240	73	32.5	"	24th July,
" Parsonstown,	10,782	254	20	16.6	11th April,	10th October,
" Banagher,	3,679	130	72	33.6	2nd March,	27th May,
" Portlannington,	19,260	214	16	42.1	2nd April,	2nd August,
" Longford,	5,628	88	156	47.2	24th June,	16th "
" Granard,	4,203	380	5	88.3	24th July,	10th September,
" Dundalk,	2,269	6	—	—	—	—
" Ardee,	3,633	None.	—	—	—	—
" Drogheda,	10,782	254	20	16.6	11th April,	10th October,
" Navan,	3,679	130	72	33.6	2nd March,	27th May,
" Kells,	19,260	214	16	42.1	2nd April,	2nd August,
" Trim,	5,628	88	156	47.2	24th June,	16th "
" Maryborough,	4,203	380	5	88.3	24th July,	10th September,
Queen's County,	2,269	6	—	—	—	—
	3,633	None.	—	—	—	—



TABLE—continued.

	Name of Town.	Total Population.	Cholera.		Rate of Mortality per cent.	Date.	
			No. of Cases.	No. of Deaths.		First Case.	Last Case.
Province of Leinster—con.							
Queen's County—con.	Mountmellick, . . . . .	4,755	5	3	60	26th June, 1849.	27th July, 1849.
" "	Montrath, . . . . .	3,000	8	1	1.5	31st May, "	30th August, "
County Westmeath, . . . . .	Mullingar, . . . . .	4,569	190	109	57.3	8th April, "	1st June, "
" "	Moate, . . . . .	2,095	None.	—	—	—	—
" "	Wexford, . . . . .	11,252	188	76	40.4	4th September, "	16th March, 1850.
" "	Enniscorthy, . . . . .	7,016	339	139	41	20th August, "	25th " "
" "	Gorey, . . . . .	8,365	298	121	40.6	27th April, "	12th " "
" "	New Ross, . . . . .	7,543	180	96	53.3	16th February, "	27th December, 1849.
" "	Arklow, . . . . .	3,254	None.	—	—	—	—
" "	Wicklow, . . . . .	2,794	None.	—	—	—	—
Province of Munster.							
County Clare, . . . . .	Ennis, . . . . .	9,318	144	53	36.8	16th March, "	9th April, 1849.
" "	Kilrush, . . . . .	5,071	263	113	42.9	9th " "	12th May, "
" "	Ennistymon, . . . . .	2,089	138	73	52.7	1st April "	26th " "
" "	Kilalee, . . . . .	2,783	33	23	69.7	20th March, "	3rd " "
County Cork, . . . . .	Cork, . . . . .	106,055	3,176	1,329	41.8	2nd May, "	17th September, "
" "	Youghal, . . . . .	9,839	149	30	60.4	2nd May, "	16th June, "
" "	Bandon, . . . . .	8,275	361	159	44	15th May, "	31st August, "
" "	Kinsale, . . . . .	6,918	825	447	54.1	30th April, "	23rd June, "
" "	Skibbereen, . . . . .	4,715	112	48	42.8	16th May, "	8th " "
" "	Malware, . . . . .	6,851	287	144	50.1	16th April, "	16th " "
" "	Fermoy, . . . . .	6,379	None.	—	—	—	—
" "	Cove, . . . . .	5,142	301	115	38.2	8th May, "	25th " "
" "	Macroom, . . . . .	4,794	77	42	54.5	11th April, "	31st May, "
" "	Kanturk, . . . . .	4,388	2	1	50	6th April, "	11th April, "
" "	Midleton, . . . . .	4,591	285	146	51.2	16th March, "	30th November, "
" "	Charleville, . . . . .	4,287	40	19	47.5	29th April, "	1st May, "
" "	Mitchelstown, . . . . .	4,181	1	—	—	—	—



23rd August,	27th May,	54.3	82	185	4,082	Bantry.
8th May,	13th April,	—	—	None.	3,993	Clonkilly,
13th June,	22th May,	77	10	None.	3,086	Dunmanway,
24th "	6th April,	50	16	13	2,722	Donegale,
6th July,	8th May,	50	32	33	2,200	Cloyne,
28th May,	25th April,	—	—	None.	2,162	Millstreet,
23rd "	26th February,	63	249	395	11,363	Tralee,
7th September,	26th March,	56	65	116	7,127	Killarney,
1st May,	29th "	37	43	86	3,386	Dingle,
27th April,	23rd "	50	13	26	2,598	Listowel,
12th July,	26th March,	44.7	746	1,500	65,290	Limerick,
8th May,	29th April,	44.5	182	409	4,201	Rathkeale,
6th October,	29th "	41.8	38	145	2,917	Newcastle,
10th June, 1850,	17th April	47.3	184	440	13,505	Clonmel,
25th November, 1849,	23rd "	52.9	206	400	8,618	Nenagh,
4th May,	30th April,	45.4	80	176	11,049	Carraig-ma-suir,
10th April,	28th March,	—	—	None.	7,523	Thurles,
28th May,	16th "	43.3	39	90	7,370	Tipperary,
26th July,	28th April,	56	9	10	8,027	Cashel,
23rd May,	7th "	66	65	116	5,275	Roscrea,
7th September,	15th "	42.1	35	83	3,915	Fethard,
11th "	20th "	51.8	56	116	3,668	Caher,
21st August,	20th July,	56.3	294	522	3,685	Templenore,
31st July,	13th May,	47.4	344	723	2,049	Clogheen,
27th August,	2nd "	18	13	72	29,288	Waterford,
12th September,	29th April,	58.2	53	91	12,382	Dungarvan,
23rd May,	26th "	54.2	19	35	3,647	Portlawn,
23rd "	24th "	47	8	17	3,007	Lismore,
23rd "	10th April,	47.4	426	897	2,969	Tallow,
23rd "	21st "	46	224	487	2,341	Cappoquin,
23rd "	26th "	44.8	403	647	32,511	Galway,
23rd "	27th March,	38.6	403	1,044	6,034	Tuam,
23rd "	23rd April,	54.9	756	1,377	5,458	Loughrea,
23rd "	17th May,	39.1	58	148	3,056	Gort,
23rd "	23rd "	—	—	—	4,934	Ballinasloe,
23rd "	23rd "	—	—	—	6,137	Castlebar,
23rd "	23rd "	—	—	—	—	Mayo,

PRINCE OF CONNAUGHT.

County Galway,

County Mayo,

TABLE—continued.

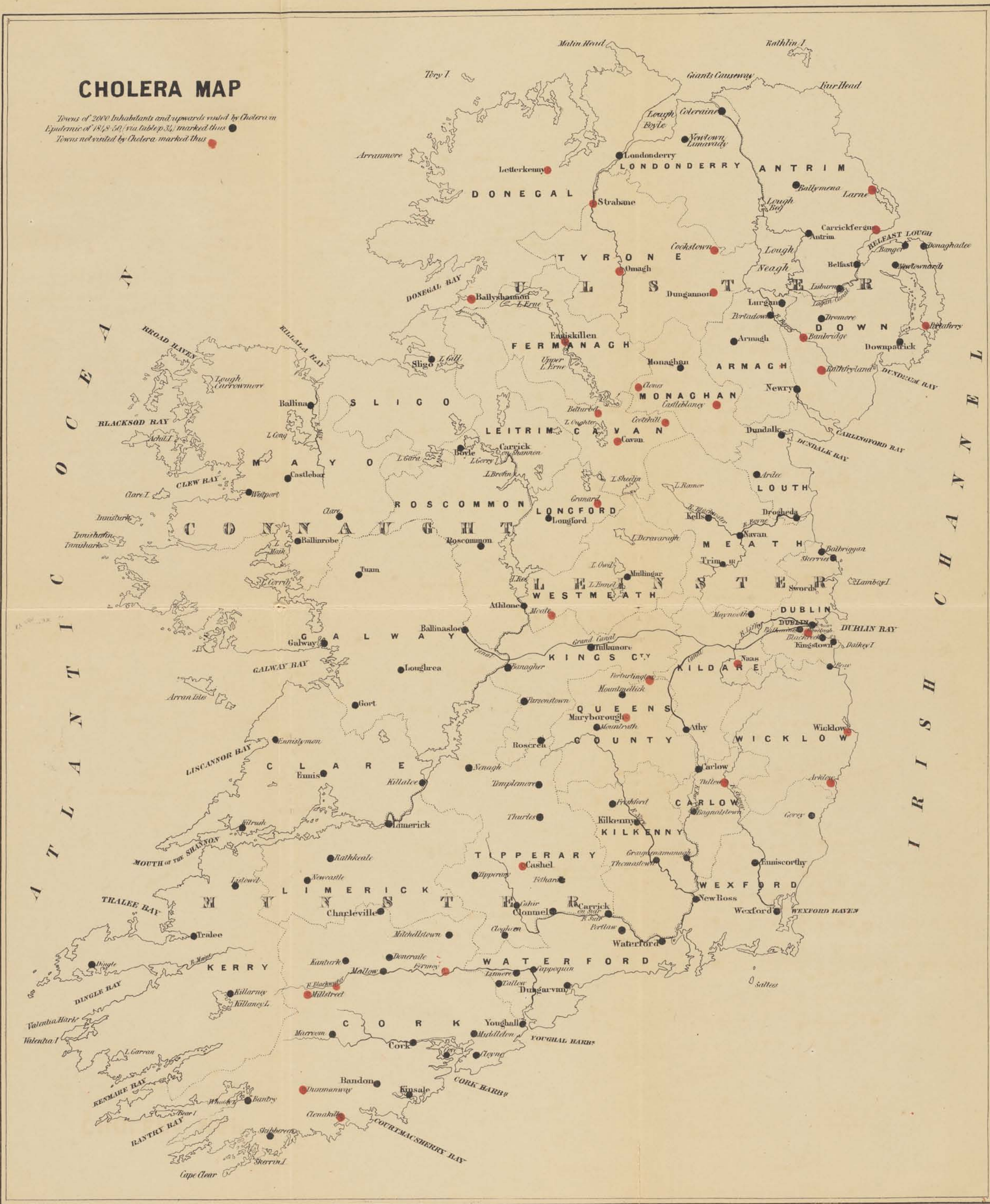
	Name of Town.	Total Population.	Cholera.		Rate of Mortality per cent.	Date.	
			No. of Cases.	No. of Deaths.		First Case.	Last Case.
Province of Connaught—con.							
County Mayo—con.	Westport, .	4,365	90	40	44.4	5th May, 1849.	8th July, 1849.
"	Ballinrobe, .	2,678	110	57	51.8	31st March, "	19th May, "
"	Clare, .	2,256	—	—	—	—	—
"	Ballina, .	7,012	798	232	31.8	24th July, "	2nd October, "
"	Roscommon, .	3,349	116	68	58.6	7th February, "	22nd September, "
"	Boyle, .	3,234	14	8	57.1	20th September, "	11th October, "
"	Athlone, .	6,393	342	185	54	3rd May, "	10th September, "
"	Sligo, .	14,318	392	106	50	7th August, "	8th October, "

 *Vide* accompanying map, with the above towns marked as in table.

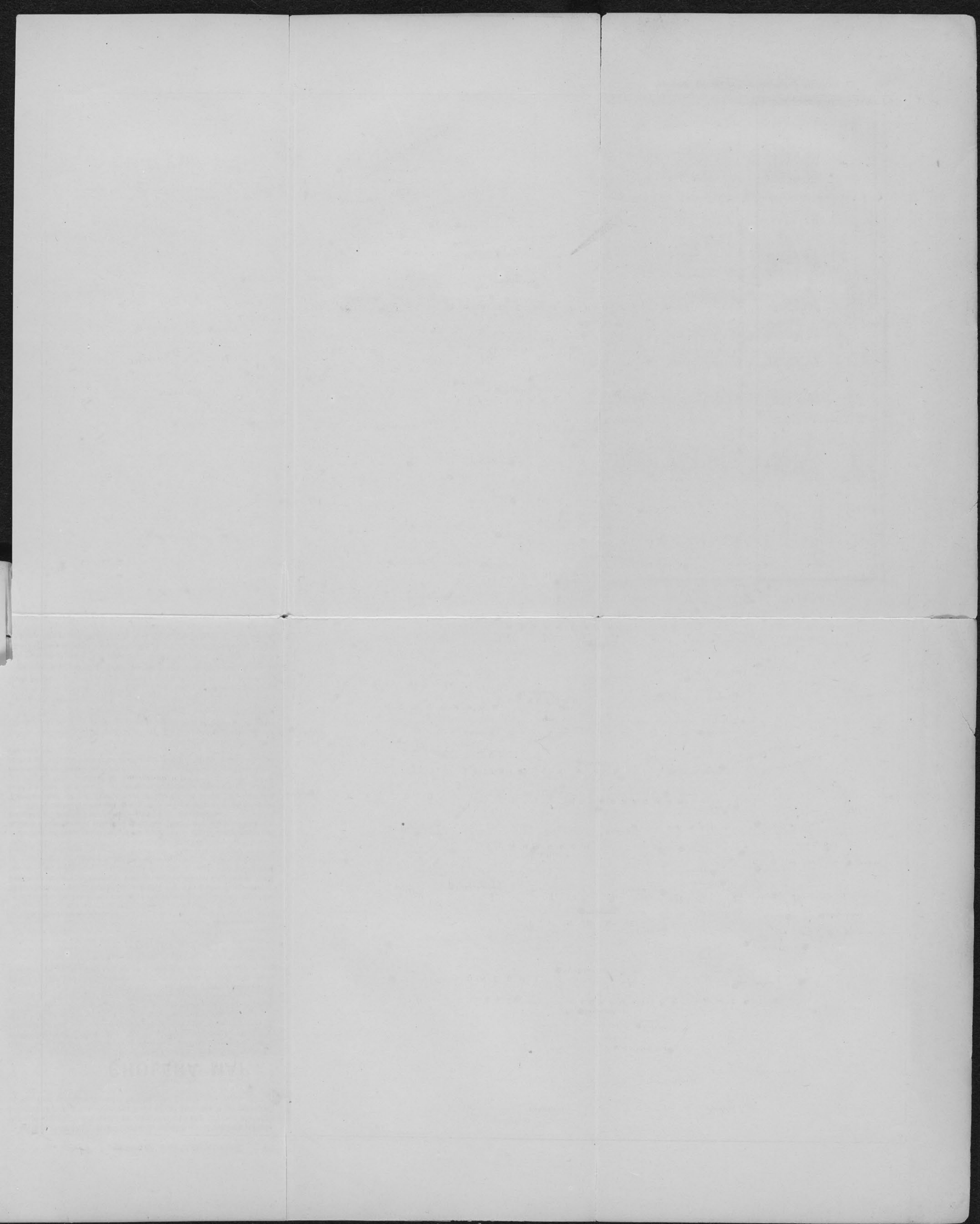


# CHOLERA MAP

Towns of 2000 Inhabitants and upwards visited by Cholera in Epidemic of 1848-50, (see table p. 34) marked thus ●  
Towns not visited by Cholera marked thus ●







With a view to elicit information on the disputed question of the contagion of Cholera, we addressed to the several Medical Officers through the country, from whom Reports were received of the first appearance of Cholera, the following circular :—

“ Central Board of Health,  
“ 13, Ely-Place,  
“ Dublin, 1849.

“ Sir,—I am directed by the Central Board of Health to acknowledge the receipt of your letter of the inst., notifying the occurrence of cases of Cholera, at , and I am to request you will forward for the information of the Board, the particulars required in the headings of the columns of the enclosed form of report.

“ The Board will be obliged for any information you may be able to supply, as to whether the patients had been long resident at , or had lately come from some place where Cholera prevails ; or had had communication with persons in that disease, also, whether the second case had access to the first one.

“ I have the honor to be, Sir,

“ Your obedient servant,

“ W. H. HOPPER,

“ Secretary.

“ To Dr. ————.”

To this thirty-seven replies were received, which may be thus classed : eight doubtful, six in support of the views of the first attack in the locality, owing its origin to contagion, and twenty-three replies, stating that the attack could not be traced to importation or contagion. We subjoin a few extracts on both sides of the question :—

*Belfast Union*, December 6th, 1848, (Dr. Reid).—“ A case of Asiatic Cholera was admitted into the Fever Hospital at 9 in the morning of Monday last, and died at 7½ in the evening.

“ The patient, Thomas Tiernan, and his family, had removed on Tuesday the 28th ult., from a part of Edinburgh, in which there had been no case of Cholera, to an entry or close in that city in which this disease had prevailed for some weeks, \* \* \* \* \* he arrived at Belfast on Saturday morning, suffering from Diarrhoea, and was admitted into the probationary ward of the workhouse in the evening.”

To the supposed contagion of this case, the attack of Cholera in Belfast, in both workhouse and city was attributed.

Mr. Phelan was directed by the Commissioners for administering the Laws for the Relief of the Poor in Ireland, to report on this case, and the following is an extract from his observations :—

*Belfast*, January 18th, 1849 (Dr. Phelan).—“ But on close inquiry, this opinion of contagion appears to be scarcely well founded. I find that Tiernan, the first case, was some hours in the probationary ward in the front of the workhouse, and next transferred to the Fever



Hospital, where he died in a few hours. The next case (Sherry), 7 days after got ill in one of the upper wards of the male portion of the Infirmary, at the rere of the workhouse; on close inquiry, it is stated to me that she had no communication whatever with Tiernan.

"Again, a boy got ill in the boys' dormitory, a place entirely detached from all those portions, being a shed at the rere of the male idiots yard, and soon after a woman got ill in the adult female ward, neither of whom, it is said, had the slightest communication with others sick, or with parties attending them \* \* \* \*

Although all the cases I have mentioned slept in beds, having one, two, or three in the same bed, not one other that slept in such beds got Cholera."

*New-Ross*, 5th March, 1849 (Dr. Rossiter).—"I have made every inquiry, and ascertained that the parties first attacked with Cholera had all resided in the places where they were seized with the disease for many months, and in the town for several years, and that none of them had been in any locality where Cholera was prevalent, or had communication with any person affected with that disease."

*Cahir*, 21st March, 1849 (Dr. Bagnell).—"The first case was a man who came from Limerick; yesterday a woman died here, who also left Limerick the day before, both cases were in comfortable circumstances, and both proved fatal—this day four additional cases have been reported to me, one fatal, three others still alive, but one quite blue and sinking, the others not so bad; in all six cases, three fatal."

*Armagh Workhouse*, 14th April, 1849 (Dr. Riggs).—"Respecting the recent outbreak of Cholera here, I beg to give you the following particulars:—

"On Saturday last, the 7th inst., a strong wind set in from the north-east, of a keenly piercing nature. This wind blew in a direct line to Armagh, from Belfast, where Cholera is now prevalent, and on that evening a girl aged 12 years, when in the female school of the workhouse, was suddenly attacked with malignant Cholera, which proved fatal in 14 hours. This girl was an inmate of the house for nearly 2 months, and had had no communication whatever with any infected person, or place; I may mention that about the same hour a man was suddenly attacked with this disease about a quarter of a mile from the workhouse, on the Belfast road, and has since died.

"On Sunday evening 5 persons were suddenly seized with Cholera in the workhouse, and, as you are aware, for 3 days the disease continued to increase with much frequency and fatality. During this period the wind continued in the same point, and on its shifting towards the west, there was an evident decline in the virulence of the malady. The rapid and almost instantaneous manner in which many persons were seized in all parts of the house (they were entirely separated from each other), proves unquestionably that the poison of Cholera was carried by the atmosphere, and that the disease on this occasion was not propagated by contagion. Up to the present time, the persons attacked with Cholera were almost all in a delicate state of health, many of them being already inmates of the hospital."

*Macroom*, 20th April, 1849 (Dr. Crooke).—"The individuals seized with Cholera had been for some time inmates of the auxiliary workhouse, and it is impossible there could have been commu-

nication with any locality where Cholera prevailed, or with any person in that disease."

*Lisburn Union, Lisburn, 28th April, 1849 (H. McCall).*—"In my last, I took the liberty of referring to some facts, tending to prove the infectious nature of Cholera. I have now to state some circumstances of an opposite character—(facts referred to in former letter of April 19th, were the circumstances of two women employed to wash the clothes of Cholera patients, having died of the disease).

"In 1832, when the disease raged extensively in Belfast, the pawnbrokers came to a resolution to cease taking pledges, but three or four ran the risk, and continued to do business during the entire period of the attack throughout the town. I called on one of them a few days since, and he states that none of those caught the disease, although he himself had (incautiously) received clothing which had been over a deceased Cholera patient. In the present period no pawnbroker has taken the disease; yet it is astonishing the risk encountered by the people in that business, as the friends of Cholera patients make no scruple to pledge clothing, in many cases just taken off persons ill of the disease. These facts coupled with those to which I referred in my last, are at least worth notice, if it were only to show how many arguments can be adduced on both sides of the question."

*Ballinasloe, 29th April, 1849 (Dr. Colahan).*—"As to those persons first attacked by Cholera, I have to observe, that the 14 cases occurred simultaneously during the night of Sunday the 22nd. At an early hour the following morning, being informed of the circumstance, I ascertained that this number had been, some in the beginning, others in the collapsed stage of the disease. During the day (Monday), several cases in addition, amounting, as reported, to 32, occurred at different intervals, and as stated in my observation in the enclosed form, had not communicated in any way whatever with the deceased, those attacked during the day having slept the previous night in different dormitories; those first attacked appear to have been in the workhouse from 3 to 8 weeks, none of the large number of the attendants or others engaged in the treatment have shown any symptoms of the disease."

*Tullamore, 30th May, 1849 (Dr. Moorehead).*—"The first person attacked with Cholera in the workhouse was admitted a pauper, October 20th, 1846, since which she had not been where Cholera prevailed, nor had she any communication with persons in that disease; she had been a remarkably healthy strong woman, of great moral courage, high spirits, and cheerful disposition."

We have nothing to alter or modify in the advice given in our circular of the 1st September, 1848, with regard to future arrangements, should unfortunately Cholera again visit us; which, in reference to medical treatment, may be summed up in providing prompt dispensary attendance for the sick poor who may wish to remain in their own homes, and hospital accommodation for those who stand in need of it.

Proposals were made, and in a few instances arrangements were put in practice, to carry medical attendance beyond this, by

means of what was called Domestic Visitation, that is, sending into the locality in which the disease appeared, Medical Inspectors, whose duty it was to make rounds of visits on all the poor families in the streets or lanes in the vicinity, to inquire into the health of the inmates, and to administer medicine to them. We do not recommend the practice; such a system cannot be carried out without an appearance of prying inquiry, which is in general ill received. It cannot be efficient; for a large portion of the male population, and often a portion of the females of the district, must be away in various places a great portion of the day at their several occupations: even the provision of inspection is calculated to lead to procrastination in seeking relief, as those attacked by premonitory symptoms are rather induced by the expectation of the Inspector's visit to defer prompt application to the district Dispensary; and in some instances that came under the knowledge of the Board, the feeling of the people visited in this way was the very opposite of gratitude, the Inspectors were maltreated, the supposition being taken up, and the rumour rapidly spreading, that death had occurred from the medicines thus intrusively administered.

We have therefore only to advise in respect to future arrangements, that in the event of a visitation of Cholera, the greatest facilities for medical relief should be presented by providing Dispensaries and Hospitals to afford by night as well as by day, the promptest attendance on all applicants, and that the greatest publicity should be given by posted notices of the situation of such Dispensaries and Hospitals.

We have the honor to be,

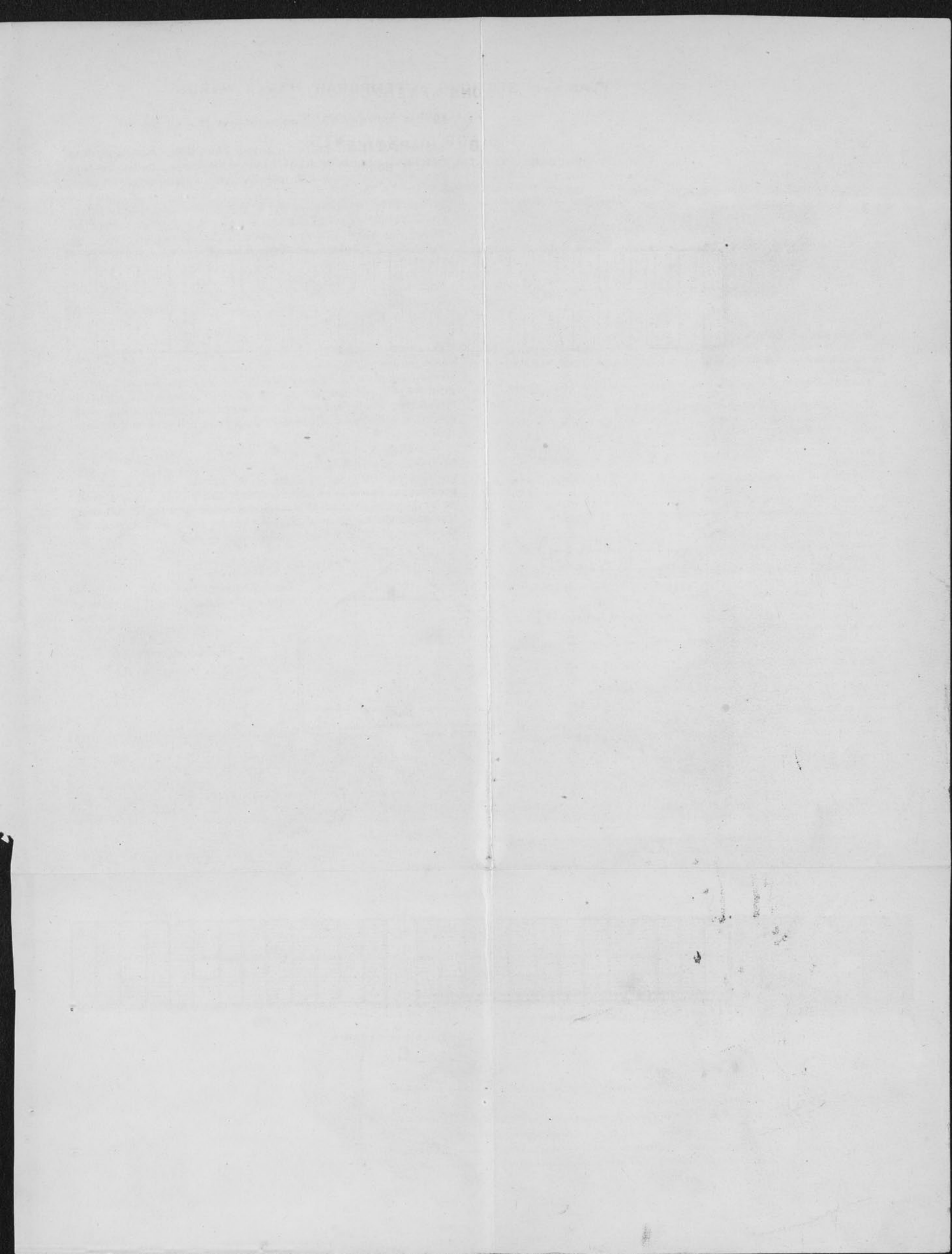
Your Excellency's

Obedient faithful servants,

PHILIP CRAMPTON.

H. MARSH, M.D.

D. J. CORRIGAN, M.D.



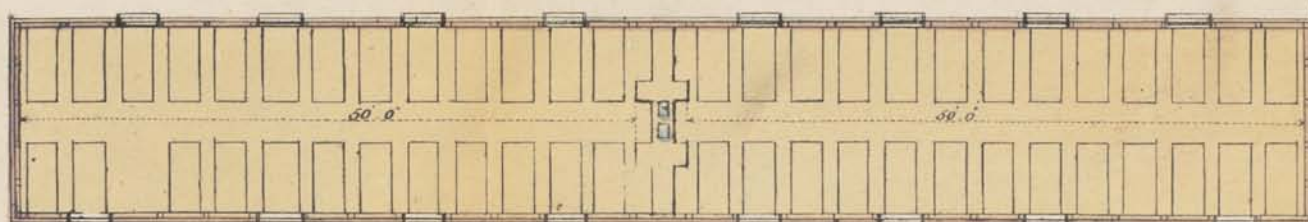


# PLAN AND SECTIONS OF TEMPORARY FEVER WARDS

OF ECONOMICAL CONSTRUCTION

## FOR 50 PATIENTS

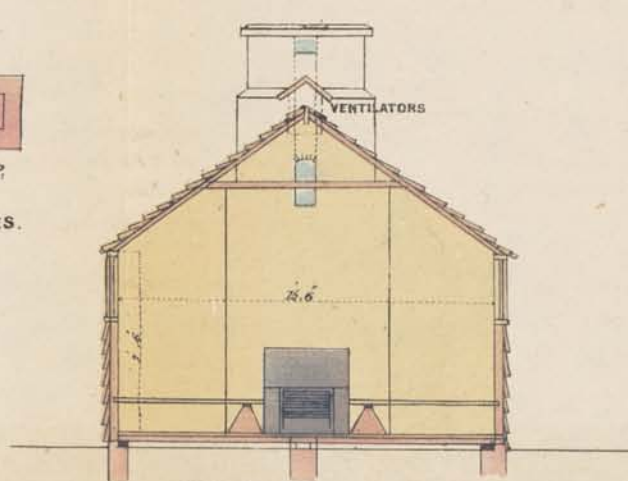
PREPARED FOR THE CENTRAL BOARD OF HEALTH, IRELAND.



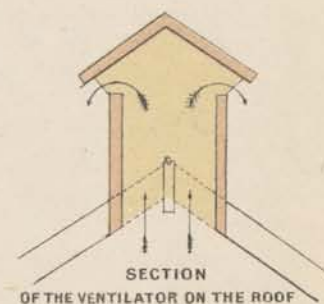
PLAN  
A



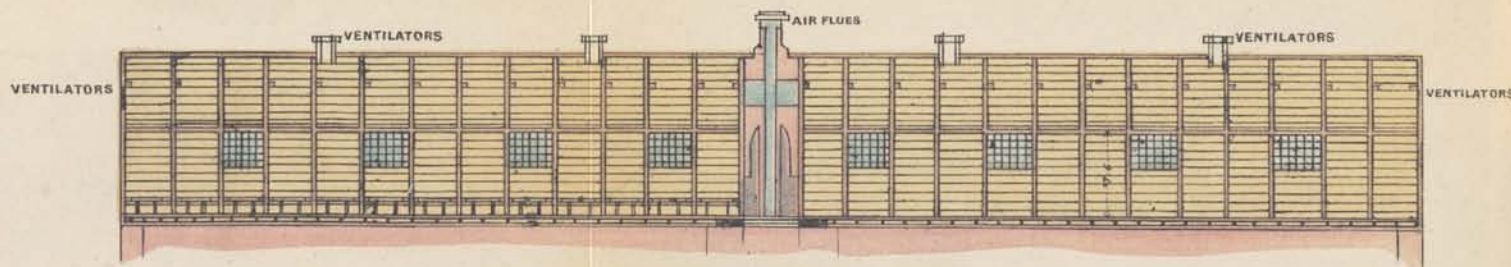
PLAN OF THE FLUES AT THE TOP  
a a AIR FLUES.  
ff FLUES FROM THE FIRE PLACES.



TRANSVERSE SECTION  
B



SECTION  
OF THE VENTILATOR ON THE ROOF



LONGITUDINAL SECTION  
C

### Size of Scantling.

Side Studs for nailing the Upright boards to, 3x3 and 3x4 from Centre to Centre.  
Heads and Sills to be 3x3.  
Rafters to be 3x2. One over each upright Stud. Cross ties to be 3x4. Ridge 6x1 1/4.  
Floor: Boards inch thick on joist 1 1/2 x 2 and 13 inches apart. Doors inch thick.  
Contractors to include fastenings, grates, locks and every thing necessary to render the building complete. See report accompanying Plans dated March, 5, 47.

Geo. Wilkinson Archt.

March, 1847.

Forster bth. Green St. Dublin.



## APPENDIX A.

No. 1.

*Dublin, March, 1847.*

GENTLEMEN,—I have the honor to submit the accompanying drawings, which have been prepared in accordance with your instructions, for the erection of Temporary Fever Wards of a simple and economical construction.

The following are the particulars of their construction, arrangement, and cost:—

The buildings are intended to be erected with wood framing, as shown on the Sectional Drawing B, and to be boarded with rough boarding, nailed on the outside of the studs or framing; the boards to have a lap of one inch; the floor to be formed of inch deal, resting on joists 4 inches by 2, and 15 inches from centre to centre, and supported on dwarf walls.

The sides of the building to be 7 feet 6 inches high, resting on low dwarf walls of brick or stone, as shown in Section; the width of the building to be 15 feet 6 inches, which will allow a 3 feet 6 passage down the centre of the ward, and the heads of the beds to be placed along each side.

The roof to be also boarded with inch boards, having  $1\frac{1}{4}$  inch lap, and if thought advisable hereafter, it can be covered with "asphalte felt, or tar paint."\*

The windows to be formed on both sides, to be 3 feet by 2 feet 6 inches high, to hang on centres for opening, and glazed like common greenhouse lights, and to have proper lines for opening and closing.

On the ridge of the roof small ventilating hoppers to be formed, and about two of them to be placed in a length of 50 feet of roofing. By this arrangement the breath of the patients will be drawn towards the roof, leaving the centre passage of the room the most free from infectious air.

Plan A shows an arrangement for a building capable of accommodating 50 beds, spread 1 foot 5 inches apart; it exhibits two wards, one for men, and another for women, with a fire-place between. I purpose the construction of air-flues, 14 inches by 9 inches, in the chimney-shaft, to be carried up from the back of each fire-place to the chimney-shaft above the roof, having an opening from the upper part of the room into the air-flue for the escape of vitiated air, which will be drawn into it by the current of warm air in the air-flue, and be of much service in cold weather when the windows cannot well be opened. At each external gable end of the wards an opening of about 1 foot 6 inches superficial is to be left, and to be covered with a perforated zinc plate fixed against the boarding.

The bedsteads to be formed of planed boards, 6 feet long, resting at the foot on a deal tressel, and at the head on a ledge, formed in an

\* If determined, in the first instance, to be covered with asphalte felt, the boarding might be  $\frac{3}{4}$  inch thick (4 boards out of a 3 inch plank.)

economical manner, by the constructive arrangement of the frame work of the side walls. By this method a deal plank 12 feet long, with two saw cuts down, will make two bedsteads of the cheapest possible construction.

The Sectional Drawing C represents the arrangement of the bedsteads, and the framing of the wood-work of the windows, chimney-shafts, &c.

For the accommodation of a greater or less number than the 50 bedsteads shown in the accompanying plan, the wards, which are 50 feet in length each, will only require extending or shortening; and for every two feet added to the building space will be obtained equal to one additional bed, 3 feet 11 inches lineal space along each side wall being the allotment for each, with the beds placed 1 foot 5 inches apart.

The cost of the building for 50 patients, according to the foregoing particulars, and the plans referred to, including bedsteads, will be £1 10s. per foot; and for every two feet additional length added to the building, being the space, as before stated, for providing each additional bed, a cost of £3 may be calculated.

When it may be necessary to provide additional rooms for convalescents, or for other purposes, a similar kind of building can be placed at the rear of this, communicating with it by door-ways, to be formed in the side enclosure.

I have the honor to be Gentlemen, your obedient Servant,

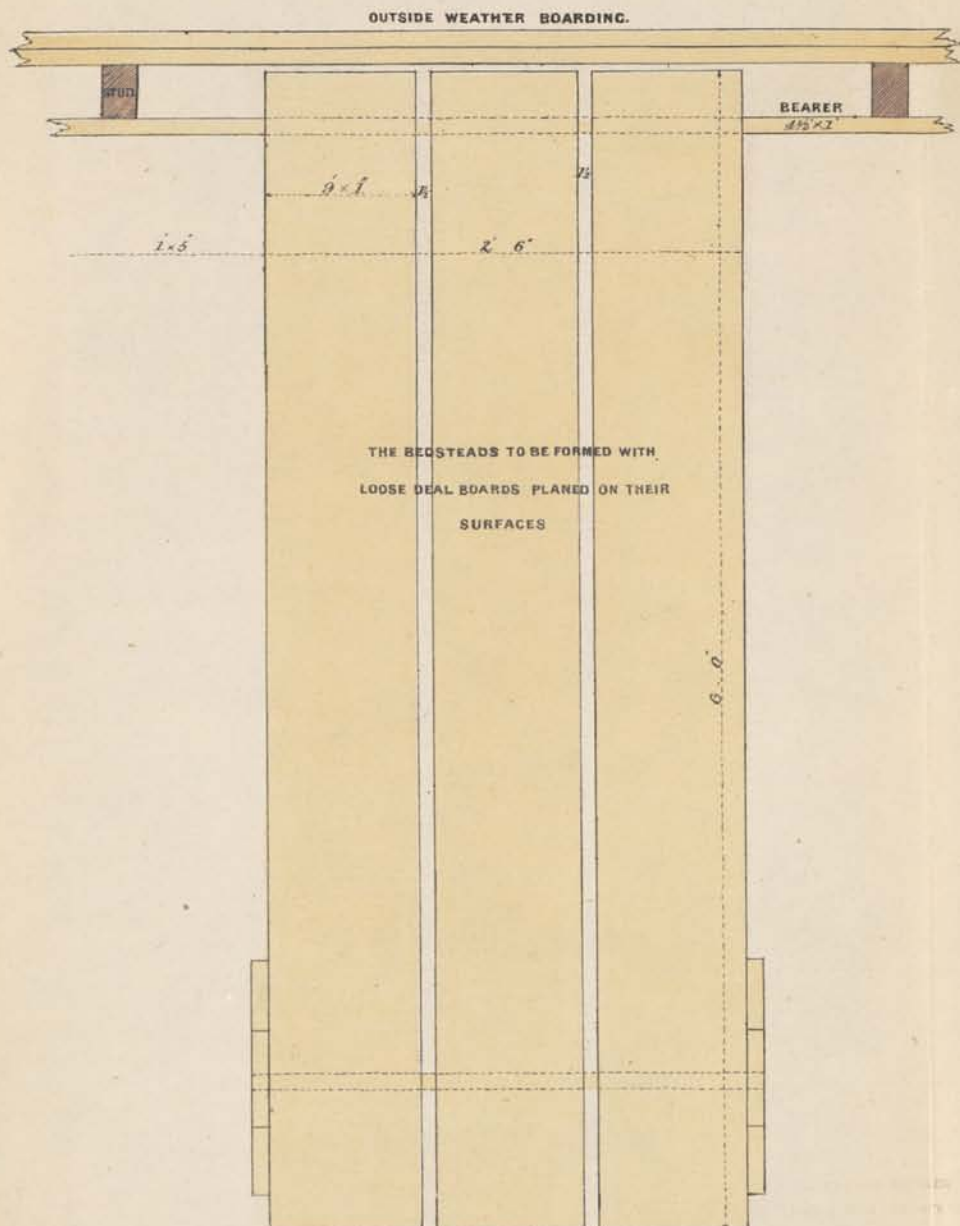
(Signed)

GEORGE WILKINSON,

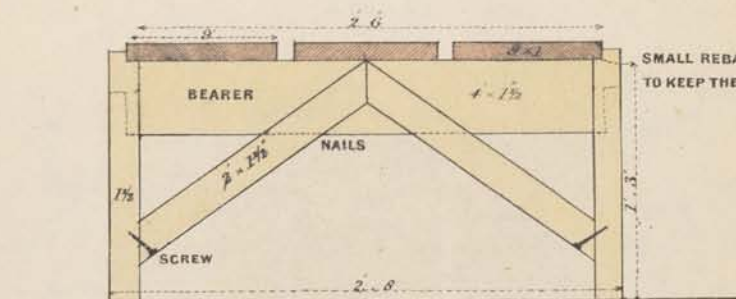
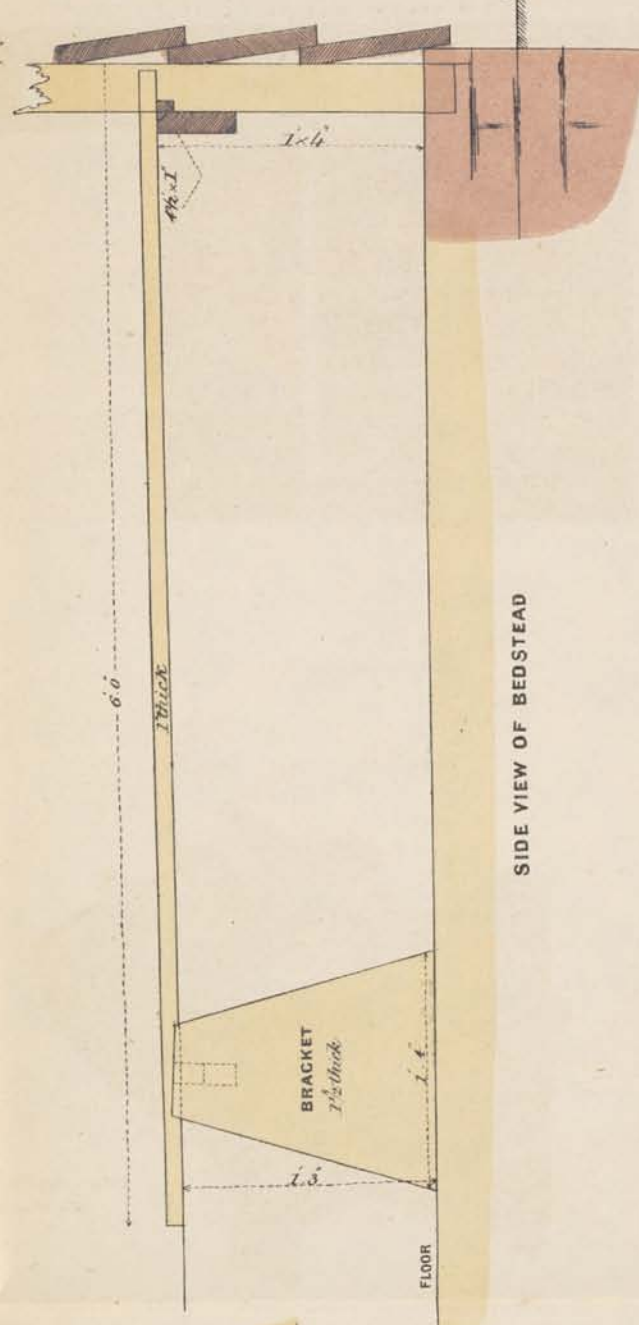
*Architect Poor-law Commission.*

*To the Commissioners of the  
Central Board of Health.*

DRAWING FOR AN ECONOMICAL BEDSTEAD PREPARED FOR THE  
CENTRAL BOARD OF HEALTH, IRELAND.



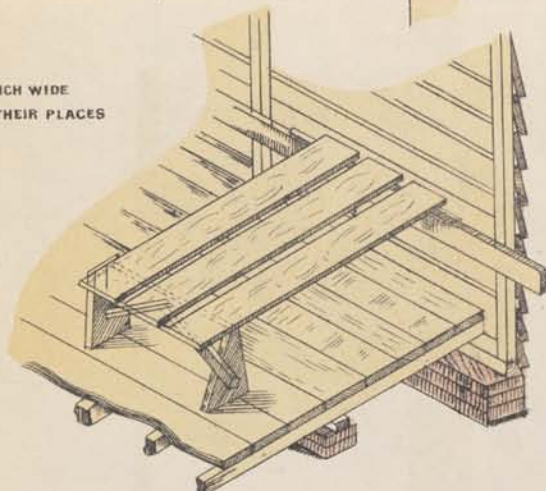
PLAN



END VIEW

SMALL REBATE HALF AN INCH WIDE  
TO KEEP THE BOARDS IN THEIR PLACES

Scale 1 Inch to a Foot.



FAMILIAR VIEW OF BEDSTEAD

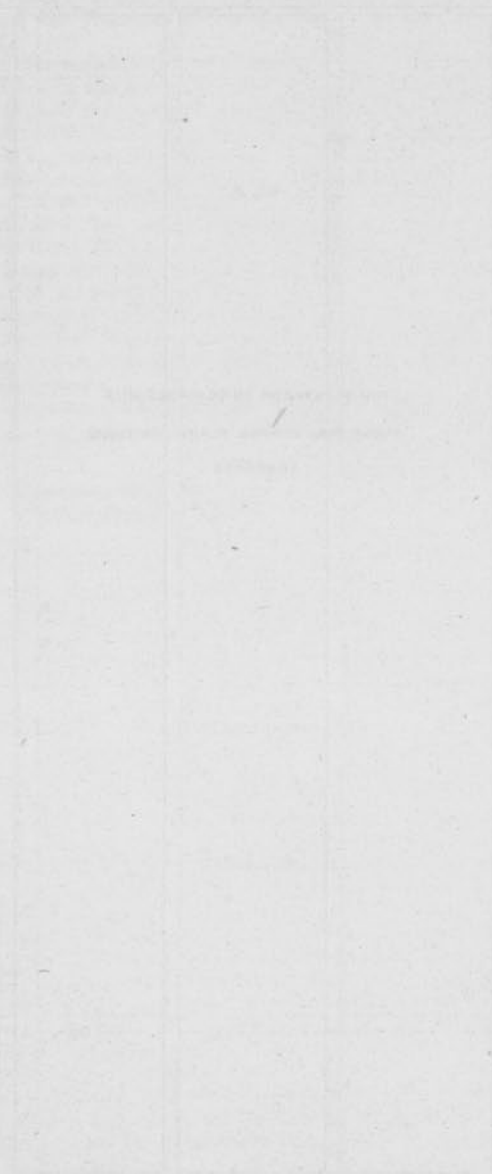
Forster, with Geo. W. Dublin

Geo. Wilkinson Archt.  
March 1877

DRAWING FOR AN ECONOMIC RECORD FOR THE

CENTRAL BOARD OF HEALTH

REPORT OF THE  
COMMISSIONER OF HEALTH





## No. 4.

## REMUNERATION OF MEDICAL OFFICERS.

*Central Board of Health,  
64, Lower Gardiner-street, Dublin.*

The following is the scale of remuneration acted upon since the formation of the Central Board of Health, in March, 1846, for Medical Officers appointed to Temporary Fever Hospitals and Dispensaries, established under that Board, in pursuance of the provisions of 9 Vic. c. 6, and 10 Vic. c. 22, or acting under the Board:—

For attendance on a Temporary Fever Hospital, established within the town or district in which the Medical Officer resides, in addition to any permanent salary he may receive as Medical Officer of any existing Institution, . . .	5s. per day, or £91 5s. per annum.
For attendance on a Temporary Dispensary under similar circumstances, . . .	5s. per day, or £91 5s. per annum.
For attendance on Temporary Fever Hospital and Dispensary together, under similar circumstances, . . .	10s. per day, or £182 10s. per annum.
For attendance on a Temporary Fever Hospital, where Medical Officer is sent to a distant district, . . .	1 guinea per day, or £383 5s. per annum.
For attendance on a Temporary Dispensary, under similar circumstances, . . .	1 guinea per day, or £383 5s. per annum.
For attendance on Temporary Fever Hospital and Dispensary, under similar circumstances, . . .	26s. per day, or £474 10s. per annum.
Separate provision is made for compounding and dispensing medicines.	
For Medical Inspection, under direction of Board of Health, . . . . .	2 guineas per day, and Travelling Expenses.

## No. 5.

## CIRCULAR.

*Central Board of Health,  
Custom House, Dublin,  
17th May, 1847.*

Applications having been made to the Central Board of Health, to put in force those provisions of the Fever Act, 10 Victoria, cap. 22, which relate to measures for the prevention of fever, such as the cleansing and purifying of the habitations of the poor, and the removal of nuisances, &c., and for the proper and decent interment of the dead, the Board of Health deem it necessary to draw the attention of the various Relief Committees to Sections IX. and XVI. of the said Act, from which it will be seen that the Board of Health are not authorized to issue any order or enforce any measures in relation to the cleansing, ventilating, and purifying of the habitations of the poor, the removal of nuisances, or the interment of the dead. These duties are devolved, by the Act, wholly on the respective Relief Committees throughout the country, who are armed with ample powers for the purpose, without needing any authority from the Board of Health.

The following are the provisions above referred to:—



IX. And be it enacted, that it shall be lawful for such Relief Committee to give all such directions as shall seem to them necessary and expedient for performing all things necessary for preventing the communicating of fever or other epidemic disease within their respective electoral divisions or districts; and for that purpose to direct that all streets, lanes, and courts, and all houses and all rooms therein, and all yards, gardens, or places belonging to such houses shall be cleansed and purified, and that all nuisances prejudicial to health shall be removed therefrom; and that all houses in which any sick person shall be, or shall have been, shall be ventilated, fumigated, and whitewashed, the windows and doors thereof opened, and all beds, bedsteads, bedding, and furniture therein be exposed to the air, and be washed and cleansed, and, if absolutely necessary, be burned or destroyed, and all other measures which to such Relief Committee shall seem requisite for the purposes aforesaid.

XVI. And whereas it is expedient to provide for the proper and decent interment of the deceased destitute persons, who shall die of fever, or other epidemic disease, in any electoral division or district for which any Relief Committee shall have been constituted as aforesaid; be it enacted, that it shall be lawful for any Relief Committee to provide for the proper and decent interment of such destitute persons as may die in such electoral division or district as aforesaid, of fever or other epidemic disease, or while receiving relief, and to defray the charge of the same out of the funds which may be at the disposal of such Relief Committee for the purposes and under the provisions of the said recited Act of this Session, or of this Act.

The Board of Health can do no more at present than offer some general suggestions.

1st. In reference to the provisions of Clause IX. for cleansing and purifying the habitations of the poor, and for the removal of nuisances. The present time appears to be a favorable opportunity for enabling Relief Committees to effect these objects with little expense, as the services of a sufficient number of able-bodied destitute persons, now receiving gratuitous out-door relief, can probably be obtained for a trifling addition of rations or money, who can be employed, under proper superintendence, in whitewashing the rooms and passages of the habitations of the poor, and in removing nuisances, such as collections of manure, contents of ash-pits, &c. In whitewashing, the regulation should be strictly enforced of having the lime always slacked immediately previously to using it, and of laying on the whitewash while still hot. After whitewashing, the floors and passages should be well sprinkled with a freshly made solution of chloride of lime, in the proportion of about a quarter of a pound to a gallon of water. A short printed notice should also be freely circulated, impressing on the people the necessity of avoiding sick rooms, wakes, and crowded meetings, and the great importance of pure air, free ventilation, and cleanliness of houses, clothes, and persons, as among the best safeguards against contagion.

It is advisable not to limit the works of cleansing and whitewashing, and the removal of nuisances, merely to the localities or places where fever may have actually appeared, but to carry out such measures, on a systematic and extensive plan, through the habitations of the poor generally. The details for effecting this can be best arranged by each Local Relief Committee.

2nd. In reference to inducing cleanliness of clothing and person among the poor,—measures so essential to health and the prevention of infection. A rule has been adopted in some instances, of insisting upon all applicants for gratuitous relief coming to the provision depots with

at least face, hands, and hair clean. This regulation has been attended with good results. The Board of Health, however, think that the principle might be carried farther, with great advantage, and that habits of cleanliness might be rapidly induced, if in every district in convenient localities, washing-houses on a simple and economical plan were established, to be kept open for a certain number of hours per day. It would be only necessary to provide each washing-house with a large boiler for the supply of hot water, and with ranges of wooden troughs divided into compartments, each of which would serve as a separate washing-tub, with a plug at bottom to allow of the dirty water being carried off previously to filling it anew for the next applicant. If a drying-room for clothes could be attached, it would of course be a most desirable addition; but the Board fear that an attempt to do too much at first might only tend to prevent practicable measures being carried into execution.

3rd. The separation of the sick from the healthy. The early removal of the sick to hospital is a measure of the greatest importance in checking the spread of disease.

To effect this with expedition and certainty, arrangements must be made,—

1st. For procuring the earliest intimation of the appearance of illness.

2nd. For the removal of persons affected.

To attain the first object, printed papers should be posted up requesting the poor to give immediate notice of the first appearance of illness in their families, at the gate of the hospital, where the porter, or a person appointed for the purpose, should keep a book in which he may enter the names and residences of the applicants for admission—a certain hour, say from 9 to 10 o'clock in the morning, being allotted for this object. There should then be in cities or towns, as in former epidemics, one or more medical inspectors, according to the extent, for each hospital district, whose duty it should be to visit, as soon as possible, the cases reported each morning, and such other cases as they may hear of, and to return to the office by a certain hour a list of those persons who are fit subjects for removal to hospital. On the lists being returned, a light covered vehicle should be in readiness to convey the sick to hospital in the course of the same day. The books kept as above will, besides, be most useful in affording information as to the actual state of disease, its diminution or increase in each district, and the corresponding amount of accommodation required.

4th. Interment of the dead.—On the provisions of Clause XVI. the Board of Health deem it necessary to offer only the following suggestions:—That graves should invariably be sunk to a depth of five feet; that the surface of each grave should be beaten hard; that where burials have already taken place, leaving the coffins nearer to the surface than five feet, clay should be carted in to cover the graves to a sufficient depth, and that, wherever obtainable, yellow clay should be preferred for this purpose; and, finally, that when new grave-yards are opened, localities should be selected at least a quarter of a mile from any town, village, or hospital, in a sufficiently exposed situation to prevent the accumulation of malaria.

By Order of the Board,

ARTHUR MOORE, *Secretary.*

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## No. 6.

LETTERS FROM THE CENTRAL BOARD OF HEALTH TO THE RELIEF COMMISSIONERS RESPECTING RATIONS PROPOSED FOR THE DESTITUTE POOR UNDER THE TEMPORARY RELIEF ACT.

*Central Board of Health, Dublin,  
10th March, 1847.*

SIR,—The Central Board of Health having had under consideration your communications of the 2nd and 5th inst. respectively, relative to the rations proposed by the Relief Commissioners to be allowed for adults, I am directed to state for the information of the Relief Commissioners, that the Board of Health are of opinion that the rations therein submitted to them for their opinion are under the circumstances reasonable allowances.

The Board of Health, however, suggests that in all instances where practicable, the food should be given out in a cooked form; as food, however good in itself, will, if not sufficiently cooked, not afford its full supply of nutriment, and it will moreover predispose to attacks of dysentery and diarrhoea now so prevalent through the country. They likewise suggest that the food given out should be varied occasionally; as for instance, on one day that bread rations be given; and on another, soup and bread; or meal and rice porridge, with bread, &c.

They also recommend as a general principle, that a considerable proportion of the nutriment should be administered in a solid or moderately consistent rather than in a very fluid form; and they suggest to the Relief Commissioners, the propriety of occasionally consulting the medical officers of dispensaries as to the effects of particular articles of diet, and the substitution of others, according as the preservation of health and, the appearance of any sickness may seem to demand such alterations.

I have the honor, &c.

A. MOORE,  
*Secretary.*

*To Wm. Stanley, Esq.  
Secretary,  
Relief Commission.*

*Scale of Rations proposed by the Relief Commissioners, and referred to in the foregoing Letter.*

1½lb. of bread;—or, 1lb. of biscuit;—or, 1lb. of meal or flour;—or, 1 quart of soup, thickened with a portion of meal according to the known receipts, and ¼ ration of bread, biscuit, or meal in addition.

*Central Board of Health, Dublin.  
11th May, 1847.*

SIR,—I am directed by the Central Board of Health to acknowledge the receipt of your letter of the 5th instant, relative to the scale of rations for adult destitute persons, and requesting the views of the Board as to the allowance proposed for children under nine years of age.

The Board of Health are of opinion that the scale of rations proposed by the Relief Commissioners,—viz., half for persons under nine years of age, and full allowance for persons over that age—is, under the circumstances, probably the best that could be devised; for although a more divided scale is useful and necessary in the dietary of large institutions, containing persons of different ages, the Board of Health fear that any attempt to carry out, in out-door relief under 10 Vic. cap. 7, a scale of

rations more sub-divided than that recommended by the Relief Commissioners, would be attended with complication in the arrangements, and would be productive of unceasing disputes.

Considering these circumstances, and the varying ages of children on the relief lists, the Board of Health concur with the Relief Commissioners in the scale proposed.

The Board of Health now desire to draw the attention of the Relief Commissioners to the communication from the Board of Health of the 10th March, in which they recommend that "in all instances where practicable, the food should be given out in a cooked form." They are now, from reports which have reached them, anxious to urge on the Commissioners the necessity of taking measures to have this recommendation acted on, without exception, in all instances. The Board of Health feel it only necessary to observe, that they fear, unless the principle be fully carried into effect, of giving out the food only in a cooked form, there will be always both an abuse and a serious evil of another kind to contend with, the abuse is, the sale of raw meal, for which purchasers are always to be found, to whom even the poor requiring the food for themselves or family will dispose of it for money, tea, or tobacco; and the serious evil is, the consumption of meal or rice, but more particularly Indian meal, in a raw or badly cooked state,\* which will predispose to and aggravate dysentery and diarrhoea, already so prevalent through the country.

The Board of Health also wish to renew their recommendation in their previous communication already referred to, of 10th March, advising as a general principle, that "a considerable proportion of the nutriment should be administered in a solid or moderately consistent rather than in a very fluid form." This principle is the more necessary to be attended to on the approach of warm weather, when soup, containing a large proportion of vegetable matter, is so liable to ferment and become sour. The Board of Health would, therefore, suggest that instead of soup ration, under section 26, there should be henceforth substituted:—

1 pint of soup and 16 ozs. of bread, as the daily ration, on soup days. As there are many different forms adopted for making soup, it may be useful to bear in mind, as a general rule, that a pint of meat soup should weigh very nearly 1½lb.

In serving out stirabout made of oatmeal, or of oatmeal and Indian corn, of oatmeal and rice, &c., in order to prevent all disputes and frauds, and to prevent the error being committed, of mistaking bulk for nutriment, so as to insure that sufficient nutriment is given, the rations should be estimated not by the bulk when cooked, but by the actual weight of raw material: thus, as the allowance per diem of meal for a ration is 1lb., care should be taken that when cooked, each ration, whatever be its bulk, should contain the equivalent of 1lb. of raw meal.

I have the honor, &c.

A. MOORE, *Secretary.*

To Wm. Stanley, Esq.

*Secretary, Relief Commission.*

*Extract from Regulations for Relief Committees: Section 26, above referred to.*

"26. One ration may consist either—of 1½lb. of bread;—or, 1lb. of biscuit;—or, 1lb. of meal or flour of any grain;—or, 1 quart of soup, thickened with a portion of meal according to the known receipts, and 1 quarter ration of bread, biscuit, or meal in addition. Persons above 9 years of age to have one ration, under 9 a half ration, in the day. In all cases, where practicable, the food should be given out in a cooked form, and should be varied occasionally, from bread rations to soup and bread, or meal and rice porridge with bread."

\* Inspectors have reported that they have seen the people devouring the raw Indian meal.



*Central Board of Health,  
64, Lower Gardiner-street, Dublin,  
1st June, 1847.*

SIR,—In reply to the request of the Relief Commissioners for the opinion of the Central Board of Health, “as to the allowance of rice which may reasonably be made in the rations to destitute persons, in lieu of one pound or other given quantity of Indian corn meal, the rice being considered to have superior nutritious qualities, and an equal weight of it yielding, when cooked, a larger quantity of solid food,”—I am directed to state:—

1st.—That the allowance of rice which may reasonably be made in lieu of Indian corn meal, should not be less than one pound and a half of rice in lieu of one pound of Indian corn meal, where either grain is given alone, and that the same proportion should be observed in a mixed ration, viz.—if half a pound of Indian corn meal be given, instead of the standard ration of one pound, that there should be given along with it three quarters of a pound of rice to make the mixed ration equivalent to one pound of Indian corn meal, and in like manner of all other proportions in which rice and Indian corn meal mixed may form a ration.

2ndly.—That the Board of Health cannot hesitate to assure the Relief Commissioners, that rice, instead of being superior, is much inferior to Indian corn meal in nutritious qualities.

It is true that rice by steeping and boiling, may be made to furnish a larger bulk of apparently solid food than will be furnished by an equal quantity of Indian corn, and hence has probably arisen the supposition of its being more nutritious, but the bulk thus obtained is deceptive as to the quantity of nutriment afforded. Rice contains about 85 parts in every 100 of starch; a given quantity of it will by steeping and boiling absorb a very large proportion of water, and will swell into a large and apparently firm mass; but this mass will contain a very small proportionate quantity of nutriment. A very simple experiment will satisfactorily illustrate this: one ounce of common starch boiled in the ordinary way, will form, with a pint of water, a firm mass, which from its apparent consistency will seem to be good substantial food; but the bulk thus formed, it is obvious, contains very little nutriment. In like manner of rice; one pound of it may be made to form, with water, a starchy mass of five or six pounds' weight, but the produce, as in the experiment of the starch, is bulk, without equivalent nutriment. The Board of Health are anxious that their observations on this subject should be clearly understood and widely disseminated, as the error is very generally prevalent of supposing, that in using rice or other similar substances, an amount of nutriment is afforded equal to the bulk gained. The Board of Health do not at all object to the use of rice as food; on the contrary, they highly approve of it, provided it be furnished in sufficient quantity.

The Board of Health are fully aware how necessary and how pressing, at the present time, is the exercise of the strictest economy, but they are also convinced, that if the use of a diet be permitted, containing too large a proportion of fluid, deficient in the due quantity of nutritious elements, and deriving its solidity principally from the presence of starch, the result must necessarily be, in those living on it, debility of constitution, with consequent inability to resist disease, and ultimately, increased expenditure in the cost of relief, instead of saving.

For these reasons the Board of Health deem it important that the principle laid down in their previous communication of 11th May, should be strictly adhered to, viz.—that rations should be given out cooked, and in as solid form as possible, and that they should be estimated, not by the bulk when cooked, but by the rule that each cooked ration should contain the equivalent of 1lb. of raw meal, the quantity originally sanctioned by the Relief Commissioners of the Board of Health.

I have the honor, &c.

To Wm. Stanley, Esq.  
Secretary, Relief Commission.

A. MOORE, Secretary.



Central Board of Health,  
64, Lower Gardiner-street, Dublin,  
21st June, 1847.

SIR,—The Central Board of Health have had under consideration your letter of the 3rd instant, requesting to be informed—"in how small a proportion rice may be used with Indian meal, (if at all necessary,) without sacrificing its useful properties, as a corrective of the prevailing malady of the population; or the advantage, if any, of the additional bulk it acquires in cooking?"—and in reply, the Board desire to observe, that the precise proportion for the object in view could not be fixed, as it would often necessarily vary according to circumstances of seasons, predisposition to disease, and even individual constitutions; but that as a general rule, rice may be mixed with advantage in almost any proportions, however small, with Indian meal, and in larger proportions according as its cost may permit; care however, being always taken, as explained in previous letters of the 11th May and 1st June, that each ration when cooked should contain its full equivalent of raw meal and rice, as recommended by the Board of Health in the same communications.

The Board of Health, although admitting the advantage of bulk occasionally acquired in some kinds of food by cooking, yet taking into consideration one of the forms of disease now prevalent in Ireland, do not recommend that rice should be used with the object of giving bulk by the absorption of watery particles; but on the contrary that cooked rations should be given out in as solid a form as possible, leaving it to the natural feelings of thirst to supply the quantity of fluid necessary for healthy digestion. With the object also of obviating the general predisposition to relaxation of the bowels, which will probably increase as the summer advances, the Board of Health recommend the addition of some of the ordinary condiments to the stirabout, of which perhaps pepper will be found the most acceptable and the cheapest.

The Board of Health take this opportunity of acquainting the Relief Commissioners, that they have learned through the inspectors, and from other sources, that a diminution in the prevalence of diarrhoea, and a marked improvement in the general health and strength of the people, have followed upon the substitution of cooked food for raw meal; and they, therefore, again recommend that every exertion should be made for extending the use of cooked food in the distribution of rations.

While on the subject of diet, the Board of Health deem it of importance, through the medium of the Relief Commissioners, to draw the attention of Relief Committees, and of the people generally, to the fact, that a form of disease now very prevalent among the people, resembling in many particulars sea scurvy, is connected with or dependent on a defective nutrition, arising, *not from deficiency of quantity, but from deficiency of quality or variety* in the food. The potato, although not containing a large proportion of nutriment, is remarkable as containing within itself all the varied elements necessary for forming healthy blood; no one of the substitutes for it, with the exception of oatmeal, possesses this remarkable property; and hence the use of more than one article of food is necessary in order to secure a sufficient supply of the varied elements of nutrition, and thus to obviate the form of disease referred to.

With this principle in view, the Board of Health, as the season of the year now gives facilities for it, strongly recommend the admixture of onions, leeks, scallions, or shallots, in cooked meal rations, or stirabout, which will both act as condiments, and will also furnish some of the elements of nutrition essential for forming healthy blood. Onions are so rich in nutritive qualities, that as a mere article of food, one ounce and a half may be considered as equivalent to about one ounce of meal. On every opportunity, the importance to health of using vegetables, such as carrots, parsnips, and cabbage, along with meal, should be impressed upon the people.

It may not perhaps be out of place in these observations to make the

people generally acquainted with the high nutritive qualities of beans and peas, which, weight for weight, contain from 10 to 12 times as much nutriment as potatoes. In those countries where rice is very extensively used as the food of the people, experience has taught them that rice by itself has low nutritive qualities, but that the deficiency can be supplied by adding about two ounces of beans, peas, or lentils, to each pound of rice. It must however be remembered, that with beans or peas, some other vegetable food must be used, as, although possessing in a high degree some of the most important elements of nutrition, they nevertheless do not contain a sufficient variety of other nutritive elements, to support the human body in health.

I have the honor, &c.

A. MOORE, *Secretary.*

To Wm. Stanley, Esq.  
*Secretary, Relief Commission.*

# APPENDIX A., No. 7.

*Union.*

## TEMPORARY FEVER HOSPITAL AT

*Opened under the Temporary Fever Act, on \_\_\_\_\_ of \_\_\_\_\_ 18 .*

*REPORT for Week ending Saturday, \_\_\_\_\_ of \_\_\_\_\_ 1850.*

Number of Beds which the Temporary Hospital is capable of containing, . . . . . }	Males.	Females.	Total.	Fever.	Dysentery.	Diarrhoea.	Other Epidemic or Contagious Disease. (State name of Disease.)
Number of Beds provided, . . . . . }							
Remaining in Hospital on previous Saturday, . . . . . }							
Admitted this week, . . . . . }							
Total treated during the week, . . . . . }							
Discharged, . . . . . }							
Died, . . . . . }							
Remaining in Hospital on this day, Saturday, of . . . . . }							
Total (as above), . . . . . }							
Vacancies, . . . . . }							
Nos. rejected for want of accommodation, . . . . . }							

*Date, \_\_\_\_\_ day of \_\_\_\_\_ 1850.*

*Signature \_\_\_\_\_ Medical Officer.*

The numbers in Hospital were—

	Nos. Dis- charged.	Nos. Re- jected.	Nos. Ad- mitted.
On Sunday, . . . . . }			
Monday, . . . . . }			
Tuesday, . . . . . }			
Wednesday, . . . . . }			
Thursday, . . . . . }			
Friday, . . . . . }			
Saturday, . . . . . }			
Total, . . . . . }			

The whole of the Medical Officers should sign these Reports, in order of appointment, where more than one Medical Officer has been appointed.



## APPENDIX A., No. 9.

## CENTRAL BOARD OF HEALTH.

*Union.**Date*REPORT on TEMPORARY HOSPITAL, under the Temporary Fever Acts,  
at \_\_\_\_\_ in the Electoral Division of \_\_\_\_\_

No. and Names of Electoral Divisions in Hospital District.	No. of Beds which the Temporary Hospital is capable of containing.	No. of Beds for which Certificate has been issued.	Date of Certificate of Board of Health for the provision of the Temporary Hospital.	Date of first admission of Patients in Temporary Hospital.	NO. OF PATIENTS IN HOSPITAL.					No. of Vacancies.
					Males.	Females.	TOTAL.	Fever.	Dysentery, Scurvy, Purpura, &c.	

Patients—how presented }  
for admission, . . }

Name of Medical Officer,

Medical attendance . . }  
(mode and times of) }

Medicines, whence supplied—compounding of }

Situation of Hospital as to healthfulness, and whether central for the District, . . . }

Light and Ventilation— }  
No. of cubic feet of air allowed to each bed, . }

Supply of Bedding, &amp;c. .

,, Water, . .

Dietary, including ordinary forms of, and extras, . . . }

Cleanliness, . . .

Nurses and Wardmaids— }  
Number and arrangement of, . . }Hospital Registry } How }  
,, Books } kept, }GENERAL  
OBSERVATIONS,

including a short notice of the type of Fever, and ordinary duration of the attacks, complication, sequelæ—tendency to relapse—treatment generally employed; other diseases prevalent with Fever, &amp;c.

OBSERVATIONS  
OF  
BOARD OF HEALTH.*Signature**Inspector.*

APPENDIX A., No. 10.

CENTRAL BOARD OF HEALTH, IRELAND.

Union.

RETURN of PATIENTS in Temporary Fever Hospital.

Names.	Duration in Hospital.	Type of Disease.	Observations.

APPENDIX A., No. 11.

CENTRAL BOARD OF HEALTH, IRELAND.

Union.

RETURN of PATIENTS visited at their own homes in District,  
by

Population about } TOWNLAND of } day of 184  
Area }

No. of House and Names of Patients in each.	Disease labouring under.	Observations.

APPENDIX A., No. 12.

*Central Board of Health, Dublin,  
11th October, 1848.*

THE Board of Health have had under consideration those provisions of the amended Fever Act, 12 Vic., c. 131, which have reference to the salaries of the Medical Officers at the Temporary Fever Hospitals, and are of opinion, that five shillings a day, hitherto allowed to Medical Practitioners for attendance on Temporary Fever Hospitals or Dispensaries within their own districts, is only a reasonable remuneration for the labour and risk incurred in such attendance, and that it should not be departed from.

This amount of remuneration is recommended by precedent, as it appears from Official Returns laid before the Board, that such was the remuneration generally allowed to Medical Officers appointed to similar duties during the prevalence of former epidemics of fever, viz., in the years 1816, '17, and '18, and 1826, &c.; and it has received the approbation of the Lords of the Treasury, having been paid with their sanction from the commencement of the present epidemic fever in 1846, up to the passing of the amended Fever Act, 12th Victoria, chap. 131, on the 5th September last.



Representations have been laid before the Board of the expediency of constructing a scale which might apportion the rate of remuneration to the relative sizes of the Temporary Fever Hospitals, and the corresponding amount of duty to be performed. The Board, after full consideration, are convinced that it would be hardly practicable to establish any such scale. The numbers under treatment in each Hospital must necessarily vary from week to week, and if the numbers in Hospital were permitted to be the criterion of the amount of Salary, the Medical Officer would be constantly exposed to the imputation of retaining a greater number of patients than necessary, in order to entitle him to a certain amount of Salary.

Another mode of lessening the expenditure for Medical Attendance has been proposed for the consideration of the Board, viz., that the attendance of the Temporary Fever Hospital should be given to the Medical Officer already holding the Workhouse Hospital, or some other appointment or appointments under the Board of Guardians, and that thus, by giving such Officer two or more medical appointments, the united salaries would amount to a reasonable sum, although the rate allowed for any one might be very small.

The Board of Health consider that such an arrangement would be unjust to the Medical Officer, and injurious to the sick.

If attendance on a Temporary Fever Hospital be in itself worth a certain rate of remuneration, that amount of remuneration should be given for that particular duty, without reference to any other appointment which the Officer may hold—each duty should be estimated for, and paid for in respect only to itself.

The practice of imposing several appointments on the same Medical Officer on the ground of economy, is, however, open to another and more serious objection:—it will be injurious to the sick poor. Every Practitioner requires a considerable portion of each day for private practice, which is generally the main source of his income; and, if a greater amount of Hospital duty be imposed on a Medical Officer than he can perform within from one to three hours at the very farthest, the sick poor must be neglected;—no extent of supervision, no inspection, how often soever repeated, can prevent neglect in such cases. It appears, by a return before the Board, that the average number of patients in each Workhouse Hospital in Ireland, in the last week, has been 105. If such cases were like the ordinary cases in a Fever Hospital, similar in kind or type, the time required for mere attendance would not be so great; but when it is recollected that there is not only this large average number, but that it includes every variety of Medical and Surgical diseases, requiring, occasionally, operations and dressings, it is evident that great care should be taken not to curtail, on the ground of economy, the time required for the due performance of such laborious duties. In no instance in Dublin is the duty of attending 100 patients, in a general Hospital, imposed upon one Officer.

In England the practice has grown up of Medical Officers undertaking a greater amount of Medical attendance than they could themselves adequately discharge, and of committing the care of the sick poor to assistants engaged for that purpose. The Board most strongly disapprove of such a system: for it is evident that there can be no sufficient security for the professional knowledge or conduct of assistants so employed.

Adequate skill and attention can only be afforded and secured to the poor by not imposing upon any Medical Officer any greater extent of public duty than he can honestly and fairly discharge, without trenching on his private practice, and by requiring that he shall personally fulfil the duties of any Medical appointment he may undertake. This course is not more clearly pointed out by justice and humanity, than it is recommended by true economy; for neglect or bad management of the poor suffering under sickness or accident, will render them or their families a lengthened charge on the rates.

By Order of the Board,

W. H. HOPPER, *Secretary.*

APPENDIX A., No. 13.

*Order for the Regulation and Management of Temporary Fever Hospitals.*

IN pursuance of an Act passed in the 11th and 12th year of the reign of her present Majesty, Queen Victoria, entitled "An Act to amend and continue until the first day of November, 1849, and to the end of the then next Session of Parliament, an Act to make provision for the treatment of poor persons afflicted with Fever in Ireland," by which the Commissioners of Health are empowered to make orders for the regulation and management of Hospitals provided under the said Act.

Now we, the undersigned Commissioners, do issue the following directions for the management and regulation of Temporary Fever Hospitals provided under the said Act:—

1st.—That there shall be kept at every Hospital a Book, in which Members of the Visiting Committee, or Board of Guardians, or Managing Committee are to enter their observations.

2nd.—That there shall also be kept a Communication Book, in which the Medical Officers are to enter their observations on any matters connected with the management of the Hospital, conduct of attendants, diets, &c.

The Commissioners of Health recommend that, in every case, a Committee should be appointed, as provided for by Clause V. of 12 Vic., c. 131, and that one or more of the Committee should undertake the duty of frequently visiting and inspecting the Hospital in turn, particularly at the patients' meal times.

MEDICAL ATTENDANCE.

1st.—That the Medical Officer shall visit the Hospital every day before the hour of 12 o'clock, and enter his name and hour of visit in a Signature Book.

2nd.—That the provisions of the following clause be strictly enforced, which prohibits, under a penalty, any Member of Board of Guardians, Committee, or any Paid Officer, from supplying medicine, medical appliances, or any article whatever required for the Hospitals:—

"And be it enacted, That no Guardian, *Paid Officer*, Member of any Committee under the said recited Acts or either of them, or this Act, or other person in whose hands the providing for, ordering, management, control, or direction of any Hospital or Dispensary, or of Medical Relief under the provisions of this Act, shall or may be placed, shall, either in his own name or the name of any other person, provide, furnish, or supply, for his own profit, any materials, goods, or provisions, for the use of any such Hospital or Dispensary, or for affording such Medical Relief during the time for which he or they shall retain such appointment, nor shall be concerned, for his own profit, directly or indirectly, in furnishing or supplying the same, or in any contract relating thereto, under pain of forfeiting the sum of fifty pounds, with full costs of suit, to any person who shall sue for the same by action of debt, or on the case in any of her Majesty's Courts of Record at Dublin." [Sec. 10, 12 Vic., c. 131.]

3rd.—That, unless in special cases to be determined by the Board of Health, and on application to them, the Medical Officer who prescribes for the patients shall not compound the prescriptions, or perform the usual duties of an Apothecary.

4th.—That the Prescription Book used at the Hospital be of the form herewith sent, and that the Prescription Book shall be preserved.

5th.—That the medicine required for the use of the Hospital be purchased on the order of the Board of Guardians, or Hospital Committee, according to the list herewith sent, and that the quantities procured for the use of the Hospital, showing each month's consumption, be entered in the Medicine Book, a copy of which is herewith sent.

6th.—That the Clerk of the Board of Guardians, or of the Hospital Com-

mittee transmit, on the first Monday in every month, to the Board of Health, a list of the medicines and medical appliances used, with the prices annexed, and the name and residence of the person or persons from whom such medicine or medical appliances have been procured.

7th.—That the Apothecary either reside at the Hospital, or in its immediate neighbourhood, and that the medicines procured as above, be compounded by him, but that he is not to supply the medicine which he compounds. (Vide cl. 10 of 12 Vic., c. 131, as above.)

8th.—That a copy of the accompanying Table, (Hospital Weekly Return) properly filled up, be transmitted weekly to the Board of Health, signed by the Medical Officer, or Registrar.

9th.—That a book, corresponding with the accompanying form, showing the names, residences of the patients, nature of the cases, and the results, be kept and preserved for inspection in each Hospital.

#### NURSES, SERVANTS, &c.

1st.—That every Nurse employed be able to read and write.

2nd.—That the Nurses and Servants employed in and about the Hospitals receive liberal rations, as part of their wages. This rule should be strictly adhered to, otherwise the attendants will lose time in providing and preparing their own meals; and they will, moreover, be exposed to the temptation of encroaching on the patients' food.

#### PATIENTS.

1st.—That there shall be a separate bedstead for every patient.

2nd.—That every patient, on admission, shall be provided with a straw bed in sacking, two sheets, two blankets, a rug, pillow, and night-shirt.

3rd.—That the night-shirts, and sheets, and the straw, shall be changed on every Thursday in each week, and oftener if soiled.

4th.—That the straw shall be changed for each new patient.

5th.—That the wards be swept every day, and kept clean principally by dry scrubbing.

6th.—That the hour for Breakfast be 9 o'clock, Dinner 1 o'clock, and Supper 6 o'clock.

7th.—That the following shall be the dietary of the Hospital, and that it shall not be departed from, unless on special application to the Board of Health, and with their sanction.

DIETARY for TEMPORARY FEVER HOSPITALS under the Temporary Fever Acts, 9 Vic., c. 6; 10 Vic., c. 22; and 12 Vic., c. 131.

	Low Diet. (L.)	Middle Diet. (M.)	Full Diet. (F.)	Rice Diet. (R.)
BREAKFAST,	Three pints of Whey in Twenty-four Hours.	4 oz. Bread, 1 pint New Milk.	6 oz. Bread, 1 pint New Milk.	6 oz. Bread, 1 pint New Milk.
DINNER, . .		4 oz. Bread, 1 pint Beef Tea.	8 oz. Bread, $\frac{1}{2}$ lb. boiled Beef or Mutton, without bone, 1 pint of Broth.	4 oz. Bread, 1 pint Rice Milk.
SUPPER, . .		4 oz. Bread, 1 pint New Milk.	4 oz. Bread, 1 pint New Milk.	4 oz. Bread, 1 pint New Milk.

The Meat and Broth in Full Diets to be given on five days in each week; on Wednesdays and Fridays  $1\frac{1}{2}$  pint of Milk Gruel to be substituted for the Meat and Broth at dinner. Children from five to ten years of age to have half the above quantities; above ten years of age to be allowed the full quantities.

EXTRAS. { Arrow Root, allowed only for Patients on Low Diet.  
Wine . . . . . on Low, Middle, or Rice Diet.  
Whiskey, . . . . . on Low or Middle Diet.  
Porter, . . . . . }

~~and~~ No Extras to be allowed for Patients on Full Diet.

FORMS FOR MAKING	
BEEF TEA, one gallon.	BROTH, one gallon.
Beef cut small, . . . . 1 lb. Pepper, . . . . . $\frac{1}{8}$ oz. Salt, . . . . . $\frac{1}{2}$ oz. Water, . . . . . $1\frac{1}{8}$ gal. Boil for two hours.	Beef, . . . . . 1 lb. Potatoes mashed, . . . . $\frac{1}{2}$ lb. Or Barley or Rice, . . . . $\frac{1}{2}$ lb. Oatmeal, . . . . . $\frac{1}{2}$ lb. Onions or Leeks, . . . . . 2 oz. Pepper, . . . . . $\frac{1}{8}$ oz. Salt, . . . . . 1 oz. Water, . . . . . $1\frac{1}{8}$ gal. Boil for three hours.
RICE MILK, one gallon.	MILK GRUEL, one gallon.
Rice, . . . . . 1 lb. Sweet Milk, . . . . . 1 gal. Sugar, . . . . . $\frac{1}{4}$ lb. Boil slowly for an hour.	Oatmeal, . . . . . 1 lb. Sugar, . . . . . $\frac{1}{4}$ lb. Ginger, . . . . . $\frac{1}{4}$ oz. Milk, . . . . . 1 qt. Water, . . . . . 3 qts. Steep the Meal from night before. Boil for two hours.

8th.—That at least one copy of the dietary shall be posted in each Ward for the information of the patients, and as a check on the attendants' giving out the diets.

9th.—That, in addition to the ordinary diet drinks, there shall be constantly provided at the bed-side of every patient a porringer of water, and that there shall be always kept, on each Ward Table, a supply of fresh water.

#### GENERAL REGULATIONS,

*Copies of which are to be posted through the Hospital.*

Patients, able to get up, are to rise before breakfast every morning, to fold up their own sheets and blankets, and pack them neatly on the foot of each bed, so as to expose the bed to the air, and to permit a ready inspection.

Those patients, who are sufficiently strong, are to obey the directions of the nurses, in sweeping out the wards, supplying drink to other patients, and in affording all other reasonable assistance in their power; they are not, however, on any account, to be permitted to take any part in the administering of medicines or injections.

No smoking to be permitted in the wards.

No food to be brought in by the friends of patients.

Patients' friends to be admitted into the Hospital every day, for one hour, from 1 to 2 o'clock, but at no other times, unless by written direction of the Medical Officer.

Given under our hands this                      day  
of                      One Thousand  
Eight Hundred and Forty-nine.

} Commissioners.

## APPENDIX A., No. 14.

TABLE showing the order in which Requisitions were issued for the provision of TEMPORARY FEVER HOSPITALS and DISPENSARIES.

Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.
Tullamore, . . .	Tullamore, . . .	26th February, 1847.
Fermoy, . . .	Mitchelstown, . . .	3rd March, "
Carrick-on-Suir, . . .	Portlaw, . . .	17th " "
Athy, . . .	Ballylinan, . . .	19th " "
Roscommon, . . .	Roscommon, . . .	" " "
Baltinglass, . . .	Baltinglass, . . .	24th " "
Monaghan, . . .	Castleshane, . . .	29th " "
" . . .	Kilmore, . . .	" " "
Ballina, . . .	Kilcommon, . . .	5th April, "
" . . .	Binghamstown, . . .	" " "
Carrick-on-Suir, . . .	Carrick-on-Suir, . . .	14th " "
Cavan, . . .	Belturbet, . . .	" " "
Lisnaskea, . . .	Derrylin, . . .	" " "
Mallow, . . .	Doneraile, . . .	" " "
" . . .	Monanimy, . . .	" " "
Dundalk, . . .	Carlingford, . . .	19th " "
Fermoy, . . .	Castlelyons, . . .	" " "
" . . .	Rathcormac, . . .	" " "
" . . .	Castletownroche, . . .	" " "
" . . .	Kilworth, . . .	" " "
" . . .	Ballyhooly, . . .	" " "
Bandon, . . .	Bandon, . . .	4th May, "
Dublin, North, . . .	North City, . . .	" " "
Dublin, South, . . .	South City, . . .	" " "
Mallow, . . .	Mallow, . . .	" " "
Bantry, . . .	Bantry, . . .	5th " "
" . . .	Castletown Berehaven, . . .	" " "
Cashel, . . .	Fethard, . . .	" " "
Dungarvan, . . .	Dungarvan, . . .	" " "
" . . .	Aglish, . . .	" " "
" . . .	Bonmahon, . . .	" " "
Kilmallock, . . .	Kilmallock, . . .	" " "
" . . .	Bruff, . . .	" " "
" . . .	Kilfinan, . . .	" " "
Macroom, . . .	Ovans, . . .	" " "
" . . .	Aghabullogue, . . .	" " "
" . . .	Magourney, . . .	" " "
Midleton, . . .	Youghal, . . .	" " "
" . . .	Castlemartyr, . . .	" " "
" . . .	Killeigh, . . .	" " "
" . . .	Midleton, . . .	" " "
" . . .	Lisgood, . . .	" " "
" . . .	Dungourney, . . .	" " "
" . . .	Cloyne, . . .	" " "
Scariff, . . .	Scariff, . . .	" " "
" . . .	Killaloe, . . .	" " "
" . . .	Tulla, . . .	" " "
Tralee, . . .	Tralee, . . .	" " "
Waterford, . . .	Waterford, . . .	" " "
Trim, . . .	Scariff Bridge, . . .	7th " "
Dunmanway, . . .	Dunmanway, . . .	10th " "
Fermoy, . . .	Kildorrery, . . .	" " "
" . . .	Fermoy, . . .	" " "
Kanturk, . . .	Freemount, . . .	" " "



Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.		
Kanturk,	Kanturk,	10th	May,	1847.
Armagh,	Keady,	17th	"	"
Ballina,	Ballina,	"	"	"
Boyle,	Boyle,	"	"	"
Clogheen,	Clogheen,	"	"	"
"	Cahir,	"	"	"
"	Ballyporeen,	"	"	"
"	Ardinnan,	"	"	"
Cork,	Cork,	"	"	"
"	Whitechurch,	"	"	"
"	Rathcooney,	"	"	"
"	Cove,	"	"	"
"	Monkstown,	"	"	"
"	Ballincollig,	"	"	"
Downpatrick,	Killeagh,	"	"	"
Enniskillen,	Enniskillen,	"	"	"
Kenmare,	Bourdaneen,	"	"	"
Lurgan,	Moir,	"	"	"
Nenagh,	Borrisokane,	"	"	"
Parsonstown,	Uskeane,	"	"	"
Rathdrum,	Wicklow,	"	"	"
Trim,	Trim,	"	"	"
Carlow,	Leighlinbridge,	19th	"	"
Cashel,	Cashel,	"	"	"
Galway,	Oranmore,	"	"	"
Kilkenny,	Kilkenny,	"	"	"
"	Gowran,	"	"	"
"	Johnstown,	"	"	"
"	Freshford,	"	"	"
"	Castlecomer,	"	"	"
"	Thomastown,	"	"	"
"	Ballyragget,	"	"	"
Armagh,	Loughgall,	21st	"	"
Athlone,	Athlone,	"	"	"
Ballinasloe,	Eyrecourt,	"	"	"
Clogheen,	Kilbenny,	"	"	"
Clones,	Roslea,	"	"	"
Dundalk,	Dundalk,	"	"	"
Galway,	Killanin,	"	"	"
"	Moycullen,	"	"	"
"	Oughterard,	"	"	"
Kells,	Spandaw,	"	"	"
Kenmare,	Sneem,	"	"	"
Kilmallock,	Bruree,	"	"	"
"	Ballylanders,	"	"	"
Kinsale,	Kinsale,	"	"	"
"	Ballinspittle,	"	"	"
Loughrea,	Loughrea,	"	"	"
New Ross,	New Ross,	"	"	"
Rathdrum,	Bray,	"	"	"
Bandon,	Clonakilty,	24th	"	"
Caherciveen,	Valentia,	"	"	"
Kenmare,	Kenmare,	"	"	"
Limerick,	Limerick,	"	"	"
Lismore,	Templemichael,	"	"	"
"	Cappoquin,	"	"	"
Londonderry,	Londonderry,	"	"	"
Mallow,	Buttevant,	"	"	"
Naas,	Kilcullen,	"	"	"

Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.
Roscrea, . . .	Shinrone, . . .	24th May, 1847.
New Ross, . . .	Tintern, . . .	25th " "
Oldcastle, . . .	Virginia, . . .	" " "
Bailieborough, . . .	Bailieborough, . . .	26th " "
Enniscorthy, . . .	Enniscorthy, . . .	" " "
Enniskillen, . . .	Swanlinbar, . . .	" " "
Gorey, . . .	Gorey, . . .	" " "
Kilkeel, . . .	Kilkeel, . . .	" " "
Kinsale, . . .	Carrigaline, . . .	" " "
Lisburn, . . .	Saintfield, . . .	" " "
Rathkeale, . . .	Croom, . . .	" " "
Enniscorthy, . . .	Newtownbarry, . . .	28th " "
Gorey, . . .	Ford, . . .	" " "
Kells, . . .	Kells, . . .	" " "
Lisnaskea, . . .	Brookborough, . . .	" " "
Newry, . . .	Newry, . . .	" " "
Roscommon, . . .	Strokestown, . . .	" " "
" . . .	Lanesborough, . . .	" " "
Clones, . . .	Clones, . . .	29th " "
Fermoy, . . .	Mogeely, . . .	" " "
Galway, . . .	Galway, . . .	" " "
Kenmare, . . .	Tousist, . . .	" " "
Lismore, . . .	Tallow, . . .	" " "
Macroom, . . .	Macroom, . . .	" " "
Mohill, . . .	Mohill, . . .	" " "
Monaghan, . . .	Monaghan, . . .	" " "
Dingle, . . .	Dingle, . . .	1st June, "
Lurgan, . . .	Portadown, . . .	" " "
" . . .	Lurgan, . . .	" " "
Scariff, . . .	Feakle, . . .	" " "
Sligo, . . .	Collooney, . . .	" " "
Thurles, . . .	Thurles, . . .	" " "
Ballinrobe, . . .	Ballinrobe, . . .	2nd " "
Banbridge, . . .	Tanderagee, . . .	" " "
Caherciveen, . . .	Drumod, . . .	" " "
Clogheen, . . .	Whitechurch, . . .	" " "
Roscrea, . . .	Killavenogue, . . .	" " "
Cootehill, . . .	Corgreagh, . . .	3rd " "
Fermoy, . . .	Ardnageechy, . . .	" " "
Rathdown, . . .	Rathdown, . . .	" " "
Newcastle, . . .	Newcastle, . . .	4th " "
" . . .	Abbeyfeale, . . .	" " "
" . . .	Ballingarry, . . .	" " "
" . . .	Killeedy, . . .	" " "
Skibbereen, . . .	Leap, . . .	" " "
" . . .	Abbeystrowry, . . .	" " "
" . . .	Tullagh, . . .	" " "
" . . .	Aghadown, . . .	" " "
" . . .	Kilmoe, . . .	" " "
" . . .	West Skull, . . .	" " "
" . . .	East Skull, . . .	" " "
" . . .	Caherragh, . . .	" " "
" . . .	Dromdalleague, . . .	" " "
" . . .	Roscarbery, . . .	" " "
Tipperary, . . .	Tipperary, . . .	" " "
Tralee, . . .	Castleisland, . . .	" " "
Roscrea, . . .	Dunkerrin, . . .	5th " "
Banbridge, . . .	Dromore, . . .	8th " "
Callan, . . .	Mullinahone, . . .	" " "

Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.		
Carlow, . . . .	Borris, . . . .	8th	June,	1847.
Granard, . . . .	Drumlumman, . . . .	"	"	"
Macroom, . . . .	Matchy, . . . .	"	"	"
Mallow, . . . .	Ballinamona, . . . .	"	"	"
New Ross, . . . .	Dunbrody, . . . .	"	"	"
Rathkeale, . . . .	Rathkeale, . . . .	"	"	"
Tuam, . . . .	Tuam, . . . .	"	"	"
Waterford, . . . .	Mullinavat, . . . .	"	"	"
Carrickmacross, . . . .	Carrickmacross, . . . .	10th	"	"
" . . . .	Raferagh, . . . .	"	"	"
" . . . .	Donaghmoynce, . . . .	"	"	"
Cootehill, . . . .	Drum, . . . .	"	"	"
Kanturk, . . . .	Newmarket, . . . .	"	"	"
Kenmare, . . . .	Ballybog, . . . .	"	"	"
Naas, . . . .	Naas, . . . .	"	"	"
Bandon, . . . .	Iniskeen, . . . .	11th	"	"
" . . . .	Innishannon, . . . .	"	"	"
Downpatrick, . . . .	Ballynahinch, . . . .	"	"	"
Dungannon, . . . .	Tullyniskin, . . . .	"	"	"
" . . . .	Moy, . . . .	"	"	"
" . . . .	Dungannon, . . . .	"	"	"
" . . . .	Donaghmore, . . . .	"	"	"
Mountmellick, . . . .	Mountrath, . . . .	12th	"	"
New Ross, . . . .	Fethard, . . . .	"	"	"
Rathdown, . . . .	Kingstown, . . . .	"	"	"
Tipperary, . . . .	Cullen, . . . .	"	"	"
Waterford, . . . .	Kilmacthomas, . . . .	"	"	"
Carlow, . . . .	Ballon, . . . .	14th	"	"
Shillelagh, . . . .	Hacketstown, . . . .	"	"	"
Armagh, . . . .	Armagh, . . . .	15th	"	"
" . . . .	Markethill, . . . .	"	"	"
" . . . .	Middletown, . . . .	"	"	"
Omagh, . . . .	Drumquin, . . . .	"	"	"
Cashel, . . . .	Killenaule, . . . .	16th	"	"
Lisburn, . . . .	Hillsborough, . . . .	"	"	"
Limerick, . . . .	Castleconnell, . . . .	18th	"	"
" . . . .	Cappamore, . . . .	"	"	"
" . . . .	Caherconlish, . . . .	"	"	"
Glenties, . . . .	Dungloe, . . . .	19th	"	"
Ballymoney, . . . .	Kilrea, . . . .	21st	"	"
Enniskillen, . . . .	Clabby, . . . .	"	"	"
" . . . .	Lisbellaw, . . . .	"	"	"
Limerick, . . . .	Kilbane, . . . .	"	"	"
" . . . .	Abington, . . . .	"	"	"
Listowel, . . . .	Listowel, . . . .	"	"	"
Midleton, . . . .	Garryvoe, . . . .	"	"	"
Rathdrum, . . . .	Newcastle, . . . .	"	"	"
Roscrea, . . . .	Bourney, . . . .	"	"	"
Parsonstown, . . . .	Parsonstown, . . . .	22nd	"	"
Trim, . . . .	Athboy, . . . .	"	"	"
Ballinasloe, . . . .	Carnacregg, . . . .	23rd	"	"
Manorhamilton, . . . .	Manorhamilton, . . . .	"	"	"
Nenagh, . . . .	CloghJordan, . . . .	"	"	"
" . . . .	Nenagh, . . . .	"	"	"
" . . . .	Toomavarra, . . . .	"	"	"
" . . . .	Silvermines, . . . .	"	"	"
" . . . .	Newport, . . . .	"	"	"
" . . . .	Portrue, . . . .	"	"	"
Cork, . . . .	Inniscarra, . . . .	24th	"	"

Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.
Roscrea, . . .	Aghancon, . . .	24th June, 1847.
" . . .	Borris-in-Ossory, . . .	" " "
Cavan, . . .	Ballyhaise, . . .	25th " "
" . . .	Crossdoney, . . .	" " "
" . . .	Belturbet, . . .	" " "
" . . .	Ballymachugh, . . .	" " "
" . . .	Stradone, . . .	" " "
" . . .	Killashandra, . . .	" " "
Clones, . . .	Newtownbutler, . . .	" " "
Granard, . . .	Granard, . . .	" " "
New Ross, . . .	Graigie, . . .	" " "
Carrick-on-Shannon, . . .	Carrick-on-Shannon, . . .	26th " "
Magherafelt, . . .	Magherafelt, . . .	" " "
Omagh, . . .	Omagh, . . .	" " "
Sligo, . . .	Tobercurry, . . .	" " "
Caherciveen, . . .	Caherciveen, . . .	29th " "
Callan, . . .	Callan, . . .	" " "
Kanturk, . . .	Kilmeen, . . .	" " "
Kenmare, . . .	Kilgarvan, . . .	" " "
Kilmallock, . . .	Glenroe, . . .	" " "
Parsonstown, . . .	Kinnety, . . .	" " "
Bailieborough, . . .	Kingscourt, . . .	30th " "
Thurles, . . .	Templemore, . . .	" " "
Oldcastle, . . .	Castlepollard, . . .	1st July, "
Enniscorthy, . . .	Killan, . . .	2nd " "
Wexford, . . .	Wexford, . . .	" " "
Clogher, . . .	Aughnacloy, . . .	3rd " "
Cootehill, . . .	Cootehill, . . .	5th " "
Killarney, . . .	Killarney, . . .	" " "
Ballinrobe, . . .	Kilmain, . . .	6th " "
Omagh, . . .	Dromore, . . .	" " "
Cashel, . . .	Knockgraffon, . . .	7th " "
Omagh, . . .	Fintona, . . .	" " "
Parsonstown, . . .	Lorha, . . .	" " "
Caherciveen, . . .	Glenbeigh, . . .	8th " "
Downpatrick, . . .	Ardkeen, . . .	" " "
Monaghan, . . .	Emyvale, . . .	" " "
Trim, . . .	Summerhill, . . .	" " "
Ballina, . . .	Easky, . . .	9th " "
Drogheda, . . .	Drogheda, . . .	" " "
Abbeyleix, . . .	Ballyroan, . . .	10th " "
Banbridge, . . .	Loughbrickland, . . .	" " "
Kinsale, . . .	Nohoval, . . .	" " "
Lowtherstown, . . .	Lowtherstown, . . .	" " "
Westport, . . .	Westport, . . .	" " "
Balrothery, . . .	Balbriggan, . . .	12th " "
Enniscorthy, . . .	Clonroche, . . .	" " "
Navan, . . .	Navan, . . .	" " "
Tipperary, . . .	Golden, . . .	" " "
Carlow, . . .	Doonane, . . .	13th " "
Loughrea, . . .	Athenry, . . .	" " "
New Ross, . . .	Rosbercon, . . .	" " "
Clifden, . . .	Ballindoon, . . .	14th " "
Kanturk, . . .	Millstreet, . . .	15th " "
Roscrea, . . .	Rathdowney, . . .	" " "
Tipperary, . . .	Cappawhite, . . .	" " "
Ballina, . . .	Crossmolina, . . .	16th " "
Ballinasloe, . . .	Mountevans, . . .	" " "
Ballyshannon, . . .	Ballyshannon, . . .	" " "

Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.
Castlereagh, . . .	Kilkerrin, . . .	16th July, 1847.
Gort, . . .	Kinvarra, . . .	" " "
Athy, . . .	Athy, . . .	17th " "
Longford, . . .	Rathcline, . . .	" " "
Ardee, . . .	Ardee, . . .	19th " "
Ballinasloe, . . .	Ahascragh, . . .	" " "
Granard, . . .	Street, . . .	" " "
Magherafelt, . . .	Bellaghy, . . .	" " "
" . . .	Moneymore, . . .	" " "
Dungarvan, . . .	Clashmore, . . .	21st " "
Loughrea, . . .	Portumna, . . .	" " "
Ballinasloe, . . .	Aughrim, . . .	23rd " "
Ballinrobe, . . .	Claremorris, . . .	24th " "
" . . .	Partry, . . .	28th " "
Longford, . . .	Tarmonbarry, . . .	" " "
Castlereagh, . . .	Ballyhaunis, . . .	29th " "
" . . .	Ballinlough, . . .	" " "
" . . .	Frenchpark, . . .	31st " "
Clogher, . . .	Fivemiletown, . . .	" " "
Gort, . . .	Gort, . . .	" " "
Ballinrobe, . . .	Ross, . . .	2nd August, "
" . . .	Churchfield, . . .	" " "
Roscommon, . . .	Knockroghery, . . .	" " "
Castlereagh, . . .	Glannamodda, . . .	5th " "
Rathdrum, . . .	Roundwood, . . .	" " "
Clifden, . . .	Roundstone, . . .	7th " "
Enniskillen, . . .	Killinagh, . . .	" " "
Granard, . . .	Coole, . . .	" " "
Ennistymon, . . .	Miltownmalbay, . . .	9th " "
Kilrush, . . .	Kilrush, . . .	" " "
Oldcastle, . . .	Crossakeel, . . .	" " "
" . . .	Ballyjamesduff, . . .	" " "
Cookstown, . . .	Pomeroy, . . .	10th " "
Navan, . . .	Ardracran, . . .	" " "
Galway, . . .	Waterdale, . . .	11th " "
Longford, . . .	Clonaugh, . . .	" " "
Rathkeale, . . .	Askeaton, . . .	12th " "
Castlebar, . . .	Addergoole, . . .	23rd " "
Mullingar, . . .	Mullingar, . . .	" " "
New Ross, . . .	Innistigue, . . .	26th " "
Tuam, . . .	Monivea, . . .	28th " "
Ballinrobe, . . .	Neal, . . .	2nd September, "
Ballinasloe, . . .	Kilconnell, . . .	4th " "
Kilmallock, . . .	Charleville, . . .	7th " "
Dingle, . . .	Castlegregory, . . .	23rd " "
Belfast, . . .	Belfast, . . .	13th November, "
Lisburn, . . .	Lisburn, . . .	" " "
Clifden, . . .	Clifden, . . .	15th " "
Naas, . . .	Robertstown, . . .	" " "
" . . .	Blessinton, . . .	15th December, "
Bailieborough, . . .	Shercock, . . .	" " "
Carlow, . . .	Tullow, . . .	17th " "
Mohill, . . .	Ballinamore, . . .	31st " "
" . . .	Carrigallen, . . .	" " "
Boyle, . . .	Coolavin, . . .	5th January, 1848.
Clifden, . . .	Ballinahinch, . . .	6th " "
" . . .	Ballinakill, . . .	" " "
Ballina, . . .	Belmullet, . . .	18th " "
Callan, . . .	Kilmaganny, . . .	" " "



Union.	Electoral Division, or place named for Hospital, or Dispensary, to be provided at	Date of Requisition.
Carlow, . . . . .	Bagnalstown, . . . . .	18th January, 1848.
Manorhamilton, . . . . .	Drumkeeran, . . . . .	19th " "
Parsonstown, . . . . .	Frankford, . . . . .	5th February, " "
Ballina, . . . . .	Killala, . . . . .	18th " "
Carlow, . . . . .	Carlow, . . . . .	25th " "
Ballinasloe, . . . . .	Ballinasloe, . . . . .	13th March, " "
Shillelagh, . . . . .	Tinnehelly, . . . . .	23rd " "
Enniscorthy, . . . . .	Oulart, . . . . .	5th April, " "
Carlow, . . . . .	Ballickmoyler, . . . . .	15th " "
Ennistymon, . . . . .	Moymore, . . . . .	" " "
Kilrush, . . . . .	(Dispensaries), . . . . .	26th " "
Clifden, . . . . .	Roundstone, . . . . .	22nd May, " "
Galway, . . . . .	Annaghdown, . . . . .	25th " "
Ennistymon, . . . . .	Ballyvaughan, . . . . .	13th June, " "
Tuam, . . . . .	Dunmore, . . . . .	20th July, " "
Kilrush, . . . . .	Kilfiddaan, . . . . .	22nd " "
Rathkeale, . . . . .	Shanagolden, . . . . .	24th " "
Westport, . . . . .	Bofin, . . . . .	17th August, " "
Cavan, . . . . .	Miltown, . . . . .	9th October, " "
Ennis, . . . . .	Ennis, . . . . .	23rd December, " "
Fermoy, . . . . .	Ballynoe, . . . . .	21st April, 1849.
Dingle, . . . . .	Annascaul, . . . . .	14th May, " "
Scariff, . . . . .	Whitegate, . . . . .	27th June, " "
Carrick-on-Shannon, . . . . .	Elphin, . . . . .	28th July, " "
Lisnaskea, . . . . .	Lisnaskea, . . . . .	17th October, " "

## APPENDIX A., No. 15.

SUMMARY RETURNS, showing the Number of Patients treated under the  
TEMPORARY FEVER ACTS in the principal Towns in Ireland.

Year.	Name of Town.	Number Treated.	Number Died.	Rate of Mortality per cent.
1847	Belfast, . . . . .	484	44	9.1
"	Cork, . . . . .	3,907	316	8.1
"	Dublin, . . . . .	15,357	1,089	7.1
"	Galway, . . . . .	1,054	46	4.3
"	Limerick, . . . . .	2,429	218	8.9
"	Waterford, . . . . .	2,446	236	9.6
	Total, . . . . .	25,677	1,949	7.5
1848	Belfast, . . . . .	237	19	8.
"	Cork, . . . . .	1,792	162	9.
"	Dublin, . . . . .	9,033	812	9.
"	Galway, . . . . .	1,937	136	7.
"	Limerick, . . . . .	5,496	848	15.4
"	Waterford, . . . . .	1,854	174	9.3
	Total, . . . . .	20,349	2,151	10.5

SUMMARY RETURNS, showing the Number of Patients treated under the TEMPORARY FEVER ACTS in the principal Towns in Ireland—*continued*.

Year.	Name of Town.	Number Treated.	Number Died.	Rate of Mortality per cent.
1849	Cork, . . . . .	4,149	777	18·7
"	Dublin, . . . . .	5,481	499	9·1
"	Galway, . . . . .	1,123	221	19·6
"	Limerick, . . . . .	817	235	28·7
"	Waterford, . . . . .	2,077	127	6·1
	Total, . . . . .	13,647	1,859	13·6
1850	Cork, . . . . .	1,803	148	8·2
"	Dublin, . . . . .	3,748	296	7·9
"	Waterford, . . . . .	2,184	182	8·3
	Total, . . . . .	7,735	626	8·1
1847 } 1848 } 1849 } 1850 }	Grand Total, as above, . . . . .  (The number remaining under treatment on the termination of the years 1847, 1848, and 1849 deducted.)	64,127	6,585	10·2

## APPENDIX

SUMMARY OF RETURNS, showing the Number of Patients treated in  
Total for all Ireland, with rate of Mortality

	PROVINCE OF ULSTER.						PROVINCE OF LEINSTER.						PROVINCE OF		
	Number of Patients.						Number of Patients.						Number of		
	Remaining at the termination of previous Month.	Admitted during the Month.	Total treated.	Discharged cured.	Died.	Remaining under treatment.	Remaining at the termination of previous Month.	Admitted during the Month.	Total treated.	Discharged cured.	Died.	Remaining under treatment.	Remaining at the termination of previous Month.	Admitted during the Month.	Total treated.
1847.															
July, .	675	3,519	4,194	1,704	151	2,339	906	5,936	6,842	3,416	185	3,241	3,121	10,619	13,740
August, .	2,339	2,761	5,100	2,636	181	2,283	3,241	5,541	8,782	4,454	298	4,030	5,833	7,593	13,426
September, .	2,283	2,200	4,483	2,230	166	2,087	4,030	5,406	9,436	4,801	401	4,234	5,784	5,890	11,674
October, .	2,087	2,337	4,424	3,032	146	1,246	4,234	6,405	10,639	5,965	470	4,203	5,086	5,460	10,546
November, .	1,246	1,307	2,553	1,169	107	1,277	4,203	4,046	8,249	4,094	348	3,807	3,926	3,735	7,661
December, .	1,277	1,353	2,630	1,112	116	1,402	3,807	3,908	7,715	4,121	409	3,185	3,295	4,222	7,517
1848.															
January, .	1,402	1,184	2,586	1,448	134	1,004	3,185	4,015	7,200	3,652	467	3,081	3,530	5,100	8,630
February, .	1,004	873	1,977	875	101	1,001	3,081	2,904	5,985	2,693	324	2,968	3,851	5,416	9,267
March, .	1,001	1,062	2,063	854	132	1,077	2,968	3,303	6,271	2,935	327	3,009	4,354	5,802	10,156
April, .	1,077	1,037	2,114	1,108	148	858	3,009	3,306	6,315	3,188	413	2,714	4,740	7,793	12,533
May, .	858	869	1,727	814	84	829	2,714	2,527	5,241	2,451	272	2,518	4,595	6,069	10,664
June, .	829	674	1,503	728	67	708	2,518	2,134	4,652	2,325	203	2,124	4,254	4,440	8,694
July, .	708	682	1,390	726	64	600	2,124	2,175	4,299	2,369	204	1,726	4,114	5,226	9,340
August, .	600	301	901	463	30	408	1,726	1,476	3,202	1,683	119	1,400	3,592	3,167	6,759
September, .	408	263	671	377	19	275	1,400	1,768	3,168	1,961	129	1,078	3,039	3,164	6,203
October, .	275	128	403	216	23	164	1,078	1,209	2,287	1,192	85	1,010	2,395	2,152	4,547
November, .	164	90	254	97	17	140	1,010	1,282	2,292	1,044	118	1,130	2,250	2,246	4,505
December, .	140	207	347	140	24	183	1,130	1,495	2,625	1,366	147	1,112	2,104	3,150	5,254
1849.															
January, .	183	321	504	143	63	298	1,112	1,572	2,684	1,238	139	1,307	2,247	3,085	5,332
February, .	298	343	641	189	70	382	1,307	1,860	3,167	1,439	205	1,523	2,591	3,914	6,505
March, .	382	523	905	359	111	435	1,523	2,509	4,032	1,976	379	1,677	2,942	4,913	7,855
April, .	435	399	834	363	111	360	1,677	1,947	3,624	1,764	316	1,544	2,965	4,179	7,144
May, .	360	325	685	309	72	304	1,544	2,170	3,714	1,756	349	1,609	3,045	4,566	7,611
June, .	304	251	555	241	85	229	1,609	2,728	4,337	2,179	384	1,774	2,984	5,860	8,844
July, .	229	213	442	193	28	221	1,774	1,855	3,629	1,820	249	1,551	3,110	3,575	6,685
August, .	221	207	428	186	27	215	1,551	1,558	3,109	1,633	189	1,287	2,828	3,406	6,234
September, .	215	290	505	261	18	226	1,287	1,860	3,147	1,763	179	1,205	2,517	3,374	5,891
October, .	226	164	390	156	27	207	1,205	1,352	2,557	1,256	127	1,174	2,201	2,482	4,683
November, .	207	172	379	154	18	207	1,174	1,297	2,471	1,161	115	1,195	2,188	2,249	4,437
December, .	207	257	464	227	31	206	1,195	1,655	2,850	1,597	127	1,126	2,124	2,671	4,795
1850.															
January, .	206	188	394	153	22	219	1,126	1,490	2,616	1,131	144	1,341	1,940	2,349	4,289
February, .	219	257	476	189	27	260	1,341	1,449	2,790	1,340	138	1,312	2,032	2,592	4,624
March, .	260	304	564	257	57	250	1,312	1,898	3,210	1,737	205	1,268	2,040	3,416	5,456
April, .	250	230	480	197	52	231	1,268	1,549	2,817	1,359	160	1,298	2,080	2,709	4,789
May, .	231	168	399	192	35	172	1,298	1,611	2,909	1,455	160	1,294	1,985	3,001	4,986
June, .	172	262	434	174	38	222	1,294	1,849	3,143	1,753	182	1,208	2,168	3,404	5,572
July, .	222	157	379	191	15	173	1,208	1,510	2,718	1,367	139	1,212	1,990	2,426	4,416
August, .	173	81	254	112	10	132	1,212	981	2,193	1,014	79	1,100	1,913	1,431	3,344
Totals, .	23,373	26,059	49,432	23,975	2,627	22,830	78,381	93,536	169,917	84,458	6,384	72,573	117,702	156,946	274,608

A., No. 16.

Temporary Fever Hospitals, per Month, in each Province, and the during the Years 1847, 1848, 1849, and 1850, respectively.

MUNSTER.			PROVINCE OF CONNAUGHT.						TOTAL OF THE FOREGOING.						
Patients.			Number of Patients.						Number of Patients.						
Discharged cured.	Died.	Remaining under treatment.	Remaining at the termination of previous Month.	Admitted during the Month.	Total treated.	Discharged cured.	Died.	Remaining under treatment.	Remaining at the termination of previous Month.	Admitted during the Month.	Total treated.	Discharged cured.	Died.	Remaining under treatment.	Monthly rate of Mortality per cent.
7,297	610	5,833	172	1,278	1,450	779	52	619	4,874	21,352	26,226	13,196	998	12,032	3.8
7,097	545	5,784	619	1,788	2,407	1,133	73	1,201	12,032	17,683	29,715	15,320	1,097	13,298	3.6
6,102	486	5,086	1,201	1,462	2,663	1,312	93	1,258	13,298	14,958	28,256	14,445	1,146	12,605	4.0
6,213	407	3,926	1,258	1,661	2,919	1,995	86	838	12,665	15,863	28,528	17,206	1,100	10,213	3.8
4,066	300	3,295	838	1,480	2,318	1,223	64	1,031	10,213	10,568	20,781	10,552	819	9,410	3.9
3,676	311	3,530	1,031	1,109	2,140	1,100	60	980	9,410	10,592	20,002	10,009	896	9,097	4.4
4,259	520	3,851	980	2,033	3,013	1,537	165	1,311	9,097	12,332	21,429	10,896	1,286	9,247	6.0
4,370	543	4,354	1,311	1,506	2,817	1,398	136	1,283	9,247	10,799	20,046	9,336	1,104	9,606	5.5
4,762	654	4,740	1,283	2,004	3,287	1,726	219	1,342	9,606	12,171	21,777	10,277	1,332	10,168	6.1
7,100	838	4,595	1,342	2,773	4,115	2,166	274	1,675	10,168	14,909	25,077	13,562	1,673	9,842	6.6
5,850	560	4,254	1,675	3,507	5,182	3,828	233	1,121	9,842	12,972	22,814	12,943	1,149	8,722	5.0
4,122	458	4,114	1,121	1,350	2,471	1,113	129	1,229	8,722	8,598	17,320	8,288	857	8,175	4.9
5,289	459	3,592	1,229	1,801	3,030	1,502	136	1,392	8,175	9,884	18,059	9,886	863	7,310	4.7
3,387	333	3,039	1,392	1,109	2,501	1,177	109	1,215	7,310	6,053	13,363	6,710	591	6,062	4.4
3,528	280	2,395	1,215	1,520	2,735	1,415	109	1,211	6,062	6,715	12,777	7,281	537	4,959	4.2
2,072	216	2,259	1,211	1,142	2,353	1,169	82	1,102	4,959	4,631	9,590	4,649	406	4,535	4.2
2,184	217	2,104	1,102	1,165	2,267	1,017	116	1,134	4,635	4,783	9,318	4,312	468	4,508	5.0
2,610	397	2,247	1,134	1,682	2,816	1,309	207	1,300	4,508	6,534	11,042	5,425	775	4,842	7.0
2,292	449	2,591	1,300	1,516	2,816	1,227	211	1,378	4,842	6,494	11,336	4,900	862	5,574	7.6
3,028	535	2,942	1,378	1,929	3,307	1,550	277	1,480	5,574	8,046	13,620	6,206	1,087	6,327	7.9
3,967	923	2,965	1,480	2,418	3,898	1,893	440	1,565	6,327	10,363	16,690	8,195	1,853	6,642	11.1
3,210	889	3,045	1,565	1,803	3,368	1,554	383	1,431	6,442	8,328	14,970	6,891	1,699	6,380	11.3
3,722	905	2,984	1,431	2,073	3,504	1,608	448	1,448	6,380	9,134	15,514	7,395	1,774	6,345	11.4
4,844	890	3,110	1,448	2,204	3,652	1,835	406	1,411	6,345	11,043	17,388	9,099	1,765	6,524	10.1
3,368	489	2,828	1,411	1,337	2,748	1,395	227	1,126	6,424	6,980	13,504	6,785	993	5,726	7.3
3,263	454	2,517	1,126	1,068	2,194	1,103	201	890	5,726	6,239	11,965	6,185	871	4,909	7.2
3,316	374	2,201	890	1,011	1,901	1,006	167	728	4,909	6,535	11,444	6,346	738	4,360	6.4
2,250	245	2,188	728	655	1,383	619	81	683	4,360	4,653	9,013	4,281	480	4,252	5.3
2,073	240	2,124	683	483	1,166	508	53	605	4,252	4,201	8,453	3,896	426	4,131	5.0
2,610	245	1,940	605	536	1,141	566	75	500	4,131	5,119	9,250	5,000	478	3,772	5.1
1,975	282	2,032	500	423	923	384	48	491	3,772	4,450	8,222	3,643	496	4,083	6.0
2,292	292	2,040	491	490	981	426	63	492	4,083	4,788	8,871	4,247	520	4,104	5.8
2,909	467	2,080	492	651	1,143	616	75	452	4,104	6,269	10,373	5,519	804	4,050	7.7
2,477	327	1,985	452	520	972	473	70	429	4,050	5,008	9,058	4,506	600	3,943	6.7
2,490	328	2,168	429	491	920	444	55	421	3,943	5,271	9,214	4,581	578	4,055	6.2
3,144	438	1,990	421	620	1,041	569	72	400	4,055	6,135	10,190	5,640	730	3,820	7.1
2,204	299	1,913	400	362	762	455	34	273	3,820	4,455	8,275	4,217	487	3,571	5.8
2,035	158	1,151	273	187	460	280	19	161	3,571	2,680	6,251	3,441	266	2,544	4.2
141,453	17,393	115,792	37,617	51,147	88,764	45,410	5,748	37,606	252,133	327,388	579,721	295,206	34,622	240,903	



## APPENDIX B., No. 1.

## CENTRAL BOARD OF HEALTH.

As there seems reason to apprehend that Cholera may again, perhaps within a short period, reach this country, the Commissioners of Health deem it advisable to submit, for general information, the following observations in reference to the epidemic, and to the measures proper to be adopted in the event of its re-appearance in this country.

The Commissioners of Health are anxious to impress upon all persons the important difference that exists between Cholera and Fever, with respect to the mode of propagation of these epidemic diseases. Fever, it is well known, is highly contagious, or easily propagated from one individual to another, while all experience shows that Cholera is rarely, if ever, contagious; consequently, the separation of the sick from the healthy—a measure so essential in checking the spread of Fever—is not required in Cholera, and the friends and relatives of persons attacked with Cholera may be under no apprehension of catching the disease, and need not be deterred from affording to the sick, in their own dwellings, every needful assistance and attention.

This view of the subject has an important bearing upon the measures to be adopted in meeting a visitation of Cholera. In contending against epidemic Fevers, it has been found necessary to maintain large Hospital Establishments for the purpose of preventing the spread of the disease by infection, and of affording to the sick those attentions which are so often required during the tedious recovery from Fever: but the case is different with respect to Cholera, and the Commissioners of Health, after mature consideration, do not advise that Cholera should be met by an extended system of Hospital accommodation, such as is needful in epidemics of Fever, but recommend in preference, a general system of prompt and efficient Dispensary relief, for the following reasons:—

1stly.—That Cholera being rarely, if ever, contagious, there is not risk of infection, as in Fever, in leaving the sick in their own dwellings, or in receiving them into General Hospitals.

2ndly.—That an attack of Cholera being usually so sudden, and its whole duration so short, the delay, necessarily attendant upon the removal of the patient to Hospital, may lead to loss of life, or of the time most valuable for treatment.

3rdly.—That the Medical treatment of Cholera, being much more simple than that of Fever, can be efficiently conducted at the dwellings of the patients, and the required assistance to Medical treatment can be as effectively given by the families and friends of the sick, as by nurses in Hospitals.

4thly.—That recovery from Cholera not being ordinarily followed by prolonged debility, (such as attends on Fever,) patients on their recovery from an attack of Cholera do not generally stand in need of the same lengthened Hospital attendance as Fever Patients.

The Commissioners of Health do not, however, advise, that in the event of the appearance of Cholera, Hospital relief should be altogether dispensed with, as there is always, particularly in cities, a large class of destitute persons who have neither friends nor the means of support, and to such persons efficient relief cannot be afforded except in Hospitals. The non-contagious character of Cholera fortunately removes all objection to the receiving of persons suffering under the disease into the ordinary Hospitals of the country, whether County Infirmaries or Fever Hospitals, all of which the Commissioners of Health advise should be open and in readiness to receive destitute patients in Cholera.

The Commissioners of Health believe, that besides the advantage of affording prompt and efficient relief to destitute persons affected with Cholera, the admission of such patients into the ordinary Hospitals of the country would be attended with salutary moral effects. It would greatly lessen, if not quite remove, the generally prevailing apprehensions respecting the highly

contagious nature of the disease, and would thus dispose the friends and relatives of the sick to be more active and constant in their attentions; the sick themselves no longer treated like persons stricken by a pestilence, would acquire confidence, and with confidence a strength that would enable them the better to struggle with the disease.

*Nature of the Attack.*—It seems to be a well-established fact, and one that cannot be too strongly impressed upon the minds of the people generally, as upon this fact depends the best hope of successfully contending with the disease, that in nearly all cases of Cholera, there are two stages of the disease, the first being merely Diarrhœa, or simple looseness of the bowels; the second being the stage of Collapse, or Blue Cholera, marked by cramps, failure of the circulation, lividity of the skin, cold, clammy perspiration, and all other well-known symptoms of the disease. In the first stage of the disease medical treatment is frequently successful, in the second stage too often of no avail.

The first stage, *Diarrhœa, or mere looseness of the bowels*, may be of only a few hours' duration, or may continue from one to several days. It is most important to bear in mind that this Diarrhœa *may be entirely without pain*; indeed, it most frequently is without pain, or merely accompanied with trifling griping or uneasiness. This absence of pain, or the little accompanying uneasiness, has too often thrown the patient off his guard, who has thus neglected the warning of his danger, and has allowed the time for cure to pass by.

It may be safely asserted, that during the prevalence of an epidemic of Cholera, Diarrhœa, or looseness of bowels, which is free from pain, is more dangerous, more likely to be the first stage of the disease, than Diarrhœa accompanied with griping or pain. Let it then be clearly understood, that *when the epidemic is prevalent, mere looseness of the bowels with or without pain, may be the commencement or first stage of Cholera—that the disease is generally curable in this stage, and that not a moment should be lost in applying for relief.*

To afford this immediate relief, the Commissioners of Health recommend that every existing Medical Institution, whether Hospital or Dispensary, should be open, day and night, during the prevalence of Cholera, to all applicants, without distinction, where all who apply should obtain, without a moment's delay, advice and medicine; and from which all the poor, who may be unable to leave their dwellings, may be visited with promptitude, and supplied with medicine at home, or transferred, if requisite, to Hospital.

To effect these objects the following arrangements are recommended:—

1stly. The prescribing room of every Medical Institution, whether Hospital or Dispensary, should be open day and night, without intermission, during the prevalence of Cholera, and a Medical Officer should be in constant attendance to prescribe for all applicants.

2ndly. Each Hospital and Dispensary should have a certain district allotted to it, and the attending Porter or Clerk should keep a book in which he should enter the names and residences of all applicants for relief within the district, who are unable to leave their homes. The book should show the time of application, and the name and residence of the patient.

3rdly. A second Medical Officer should be constantly in readiness to receive the names of all such applicants, and to proceed, without delay, to visit them. The visiting physician, instead of writing a prescription at the residence of the patient, should be provided with a small portable pocket-medicine-box, containing the medicines most generally required, made up in such a form as to render their administration as speedy and as simple as possible. Such portable medicine-boxes can be procured at a very small cost, or may be made up on an emergency of pasteboard, or thin board, or tin, in the form of a book, about 7 inches long, 4 inches broad, and 1 inch deep, with one of the sides to fold back, or open on hinges. The services of an Apothecary will be required to keep up a constant supply of the medicines.

required, made up ready for use. The Medical Officers will generally give formulæ for the medicines they may deem best. The following may, however, serve as an example of what should be generally provided in the pocket-medicine-boxes. The most portable forms for the medicines are selected;—the directions should, as far as practicable, be printed.

**POWDERS.**—*Carbonate of Ammonia*, in waxed papers, each paper containing 40 grains, and having a printed label on the outside:—“*Carbonate of Ammonia—Dissolve this Powder in half a pint of water, give two table spoonfulls every hour.*”

**POWDERS.**—*Compound Powder of Chalk with Opium*—(*Pulv. Cretæ c Opio.*) in packets, each containing 6 papers, each paper containing 10 grains of the Powder, with a printed label on each packet:—“*Compound Powder of Chalk with Opium, One Powder every half-hour until the looseness ceases.*”

**PILLS of Powdered Opium**, each containing one quarter of a grain of Opium, and two grains of Powdered Ginger, made up with Oil of Peppermint. The Pills to be in boxes, each box containing 6 Pills, with a printed label:—“*Opium Pills, one every half-hour until the looseness ceases.*”

**PILLS of Mercury and Opium**, each containing one quarter of a grain of Calomel, two grains of Hydrargyrum c Creta Mercury with Chalk,) and a quarter of a grain of Opium, made up with *Oil of Caraway*, (which will serve to distinguish them from the plain Opium Pills,) in boxes, each containing 6 Pills, with a printed label:—“*Mercury and Opium Pills, one every half-hour.*”

**BOTTLES** (with cork stoppers),

Half ounce	{ 1. Containing—	Tincture of Opium (Laudanum),
Bottles,	{ 2.     “	Creasote,
One ounce	{ 3.     “	Tincture of Rhatany,
Bottles.	{ 4.     “	Hoffman's Liquor.

Along with the box should be carried a small jar of strong brown mustard.

The Visiting Physicians should also be furnished with printed Forms, for the removal to Hospital, of patients who are destitute of assistance in their own dwellings;—in short, every measure should be adopted that will obviate the least delay. It may be necessary in some instances to establish Temporary District Dispensaries, but it is most desirable, for reasons already given, that the permanent institutions should be first made available.

It is not within the purpose of a communication such as this to go into details of treatment. There are, however, two points on which the Commissioners of Health feel it will not be out of place to give an opinion, viz., the employment of frictions and the allowance of drinks to the sick. The Commissioners cannot recommend that fluid applications of any kind should be employed in frictions on the body or limbs, as the cold consequent on prolonged exposure and evaporation more than counterbalances any supposed good effect from friction, which, if at all used, should be made merely with the warm hand without disturbing the bed-clothes. The Commissioners also advise that when patients suffer from thirst, they should in general be permitted to drink freely, as experience shows that the denial of drink does not check vomiting, while it increases very much the suffering of the patient from the burning thirst that so often accompanies the disease.

It is scarcely necessary to observe that, as far as empowered by Act of Parliament, the Commissioners of Health will afford all the co-operation and advice in their power to Managing Committees of Public Institutions, and to Voluntary Sanitary Associations, whose aid may be most useful in carrying out the above measures. To fix the necessary precautions and instructions in the minds of the people, it is recommended that copies of the following Circular be printed and extensively published and posted under the directions of the Local Committees.

PRECAUTIONS AND INSTRUCTIONS FROM COMMISSIONERS OF HEALTH.

Shun damp and low situations, and if possible, quit dwellings in such places, during the prevalence of Cholera; keep your houses and rooms dry, and the windows and doors open as much and as long as the weather will permit; there can scarcely be too much ventilation. An abundant supply of fresh air is as necessary during the night as in the day, and pure air is as requisite for the support of life and health as good food.

Remove all stagnant water and dung heaps from around your dwellings, and clean out all sewers without delay. Do these things at once, without waiting for the outbreak of the disease. It will be unsafe, and it will be too late to undertake them when Cholera shall have broken out.

Avoid chills; do not wear wet clothes a moment longer than can be avoided. Wear a flannel belt round the stomach and loins—make use of plain wholesome food, in the solid rather than in the liquid form—abstain from fruit, raw and ill-cooked vegetables, pastry, smoked and hard salted meats, and salted fish, pork, cider, stale or sour malt drinks, pickles, and all articles of diet that from experience are known to have a purgative effect.

Avoid purgative medicines, particularly Castor Oil, Seidlitz Powders, and Salts.

Be very careful that the water used as drink is of good quality.

Abstain from stimulants unless prescribed as remedies under medical advice. In former visitations of Cholera many persons, both rich and poor, resorted to the use of stimulants—wine, whiskey, brandy, &c., under the false impression, that what was sometimes useful as a cure, was also good as a preventive. This is a great error; stimulants, frequently taken, or taken in excess, are followed by collapse, which predisposes to the disease, and the general health, moreover, is seriously and permanently injured by the practice. In fine, shun damp places, particularly for sleeping; breathe pure air; observe cleanliness; keep the surface of the body warm; avoid fatigues, and excesses of all kinds; use wholesome plain food; live temperately; preserve, as much as possible, a state of general good health, and you will have adopted the best safeguards against Cholera.

NOTICE.

1st. If attacked by Diarrhœa or looseness of the bowels, however slight, *whether with or without pain, apply WITHOUT A MOMENT'S DELAY*, at the Dispensary in \_\_\_\_\_ where medical relief will be given at any hour of the day or night.

2nd. Let notice be given without delay, at any hour of the day or night, at the same place, of the name and residence of any patient affected with vomiting, purging, or cramps, who may be unable to go out; immediate attendance will be given, and, if necessary, the patient will be removed to hospital.

Should you be attacked with Diarrhœa or looseness of the bowels, with or without pain, and that medical advice is not at hand, go at once to bed, wrap yourself in warm blankets, roll a swathe of warm flannel, sprinkled with hot spirits of turpentine, or whiskey, closely round the body, extending from the chest to the hips, and take a teaspoonful of brandy or whiskey in a little water, with fifteen drops of laudanum, repeating it every hour, if the attack be not checked, until a third dose has been taken, but do not venture further in the use of laudanum without medical advice.

By Order of the Commissioners,

W. H. HOPPER, *Secretary.*

Central Board of Health, Dublin,  
1st September, 1848.



## APPENDIX B., No. 2.

To the COUNCILS and other Governing Bodies of CITIES and BOROUGHs; Commissioners under Local Acts; the Officers of Health appointed in pursuance of the Provisions of the Act 59 George 3, Cap. 41, the Trustees, County Surveyors and others, by Law intrusted with the care and management of Streets and Public Ways and Places in Ireland; the Guardians of the Poor of the several Unions in Ireland; the Owners and Occupiers of Houses, Dwellings, Churches, Buildings and Places of Assembly, and others having the care and ordering thereof; And to all whom it may concern.

WHEREAS by the provisions of the "*Nuisances Removal and Diseases Prevention Act, 1848*," for the prevention of epidemic and contagious diseases, and by virtue of an Order of His Excellency the Lord Lieutenant and Privy Council, bearing date the 4th day of October, 1848, directing that the said provisions of the said Act be put in force throughout the whole of Ireland, We the Commissioners of Health are authorized to issue such directions and regulations as We shall think fit for the prevention (as far as possible) or mitigation of epidemic, or contagious diseases:

Now in exercise of the authority vested in us as aforesaid, We the Commissioners of Health do issue the following directions and regulations:—

1.—We direct all Councils, and other Governing Bodies of Cities and Boroughs, Commissioners under Local Acts, Officers of Health, Trustees, County Surveyors, and others by law intrusted with the care and management of the streets, and other public ways, and places, to cause at least once in every 24 hours to be effectually cleansed, all streets, rows, lanes, courts, alleys, and passages, and public ways and places, under their respective care and management, and to cause to be removed all filth, and nuisances therefrom.

2.—And further, where it shall appear that there is not any Council or Governing Body, or that by want or neglect of the Council of any City, or Borough, Commissioners, Surveyors, Trustees, Officers of Health, or others intrusted with the care and management as aforesaid, of streets and other public ways and places, or by reason of poverty of the occupiers of premises or otherwise, there may be any default or delay in the cleansing of, or removing nuisances from any street, row, lane, court, alley, passage, or public way or other place within any Union, We authorize and require the Guardians of such Union, by themselves or their Officers to cause such street, row, lane, court, alley, passage, way, or place, to be effectually cleansed, and all nuisances to be removed therefrom, and to do all acts, matters, and things necessary for that purpose.

3.—We also direct as follows:—

That when, and so often as any dwelling-house in any part or place to which these directions and regulations extend, is in such a filthy and unwholesome condition as to be a nuisance to, or injurious to the health of any person, or,

Where upon any premises, or any part or place as aforesaid, there is any foul and offensive drain, ditch, gutter, privy, cesspool, or ashpit, or any drain, ditch, gutter, privy, cesspool, or ashpit, kept or constructed so as to be a nuisance to or injurious to the health of any person, or,

Where upon any such premises, swine, or any accumulation of dung, manure, offal, filth, refuse, or other matter or thing, is kept so as to be a nuisance to, or injurious to the health of any person, or,

Where upon any such premises (being a building used wholly, or in part as a dwelling-house) or being premises underneath any such building, any animal is kept so as to be a nuisance, or injurious to the health of any person:

In each of the above recited cases, the owner or occupier, and persons having the care or ordering of such dwelling-house, or of the premises where the nuisance or matter injurious to health may be, shall cleanse, white-wash, or otherwise purify, as the case may require, such dwelling-house or building; or abate or remove the nuisance or matter injurious to health as aforesaid with all reasonable speed after the publication of these our Direc-

tions and Regulations, or after the nuisance or matter injurious to health shall have arisen.

4.—And where it shall appear that extraordinary medical aid is required for persons attacked or threatened by Cholera, We authorize and require the Guardians of every Union where such medical aid may be required to provide sufficient medical aid, and, in suitable places, such medicines as may be required for necessitous persons attacked by Cholera or by its premonitory symptoms, and to make arrangements for the distribution of notices, stating the places where aid and medicines shall have been provided.

5.—And where it may be found impracticable to insure proper treatment at their own homes to any of the poorer classes, We authorize and require the said Guardians, where it shall appear that such accommodation is required, to provide Hospitals or suitable rooms or places, capable of accommodating necessitous cases, to which persons attacked by Cholera, who cannot be properly treated in their own homes, may be conveyed.

6.—And We require the Guardians of the Poor of any Union, in which it may be deemed necessary to provide as aforesaid, extraordinary medical aid for necessitous persons attacked by Cholera remaining in their own homes, or to provide in addition, Hospitals, or suitable rooms or places capable of accommodating such necessitous persons as cannot be properly treated at their homes, to report to us without delay, the measures or arrangements adopted to carry out the above objects.

7.—And in case of death by Cholera, We hereby authorize and require the last medical attendant upon the person of the deceased, or in case of there having been no medical attendant, the housekeeper or person present at the death, or in charge of the body, forthwith to notify the fact of the death to the Board of Guardians of the Union within which such death may have occurred, or to the Medical Officer of the District appointed by said Board.

8.—And in case the interment of any person deceased cannot be otherwise provided for, We hereby authorize and require the Guardians of the Poor of the Union in which the death has occurred, to provide for the speedy interment of such deceased person.

9.—And We authorize and direct the said Guardians to make arrangements for obtaining daily Lists of persons attacked by Cholera within their respective Unions, with the particulars of their cases and treatment, and for communicating the same daily to the Central Board of Health.

10.—And We hereby authorize and direct the said Guardians, where it may appear needful, to appoint such additional Medical Officers, and also to appoint such other Officers as may be required to execute, and superintend the execution of these Directions and Regulations, and to publish and circulate by printed hand bills, or other means, notices of the provisions of the said Act for the prevention of nuisances, and of our Regulations and Directions, or of such part of any of them, as it may appear desirable to make publicly known.

Given under our hands this Seventh day of December, One Thousand Eight Hundred and Forty-eight.

PHILIP CRAMPTON. D. J. CORRIGAN.  
ROBERT KANE. H. MARSH.

In issuing the above directions, the Commissioners of Health desire to draw the attention of the various Public Authorities to the three main objects of the 11th and 12th Victoria, Cap. 123, which are,

1st.—The abatement of all nuisances in connexion with houses or property, for the cost of abating which the owners or occupiers are responsible.

2ndly.—The abatement of public nuisances by the cleansing of streets, and all public ways and places, and the clearing out and covering of sewers or drains.

3rdly.—The Medical relief of the Sick Poor labouring under Cholera or its premonitory symptoms.

These three objects can be most effectually and most economically carried out in many places by the concurrent and mutual exertions of the Boards of

Guardians, and of the other Public Authorities, and in all towns or places where there are Town Councils, Officers of Health, or other Governing or Public Authorities having the care or management of such towns or places, the Commissioners of Health recommend that the carrying out of the first two objects should be intrusted to such Public Authorities, leaving to Boards of Guardians the execution of the third object, viz., the Medical relief of the Sick Poor.

In regard to the first object, viz., the abatement of all nuisances in connexion with houses of property, for which the owners or occupiers are justly responsible—this object can be attained with very little expense or delay by conducting the proceedings for the abatement of such nuisances under the first and third sections of the Act, which provide, that upon complaint of any two or more inhabitant Householdors, summary proceedings may be taken before a Magistrate to compel the owner or occupier to abate such nuisance, and in event of delay or non-compliance on his part, to impose on him a fine, and to have the nuisance abated, charging the expense upon such owner or occupier. The second object, viz., the abatement of public nuisances, the cleansing of streets, &c., may be most effectually and economically carried out by the Town Council, Officers of Health, Local Commissioners, and Public Authorities of the various towns in Ireland, in whom is already vested by previous Acts of Parliament the police or management of such towns. In places not provided with local managing bodies, it will, of course, be requisite that the duties above mentioned shall be performed by the Boards of Guardians of the Unions in which such place is situate, or by Officers appointed by them.

This arrangement will not only promote economy, but it will enable the Guardians in very many instances to devote more attention to the third object, viz., the Medical relief of the Sick Poor who may be afflicted with Cholera, and in regard to the most effectual mode of carrying out the necessary measures for this object, the Commissioners desire to draw the attention of the Boards of Guardians to their first notification, (a copy of which is enclosed,) which contains such general directions as it is hoped will facilitate the arrangement of the required Medical relief, should Cholera make its appearance.

By Order of the Commissioners,

W. H. HOPPER, *Secretary.*

*Central Board of Health, Dublin, 7th December, 1848.*

#### APPENDIX B., No. 3.

##### APPOINTMENT OF MEDICAL OFFICERS UNDER 12 VIC. C. 123.

*Central Board of Health, 13, Ely-place,*

*Dublin, 27th June, 1849.*

Representations having reached the Board of Health, that in several instances Boards of Guardians have elected, as Medical attendants in Cholera cases, persons who are not duly qualified as Practitioners in Medicine or Surgery, the Board of Health desire to draw attention to the fourth regulation of their Circular (No. 2.) of Directions, under the 10th Section of the Nuisances Removal and Diseases Prevention Act, which requires "that sufficient Medical aid" shall be provided for attendance on such cases, and to apprise Boards of Guardians, that the Commissioners do not consider this direction to be complied with unless the attendants so appointed to administer "Medical aid" shall be fully qualified as Practitioners in Medicine or Surgery. The Commissioners have, therefore, to request, that Candidates for such appointments, or persons already elected, will submit, for the inspection of the Board of Guardians, or the Poor Law Inspectors, or Board of Health, if required, their Diploma in Medicine or Surgery, as the Board of Health do not consider that under the direction referred to, unqualified persons are entitled to receive Salaries, or to be appointed as Medical Attendants to the charge of Districts or Hospitals.

By Order of the Board,

*To the Clerk of the Union,*

W. H. HOPPER, *Secretary.*

## APPENDIX B., No. 4.

*Union.*

RETURN showing the Number of CASES of CHOLERA treated in Hospital in \_\_\_\_\_ day of \_\_\_\_\_ 1849.

Total number of Cases reported up to this date.	New Cases.	Discharged cured.	Died.	Remaining under Treatment.
1.	2.	3.	4.	5.

The Numbers in these 2 Columns should equal those in the Columns 3, 4, and 5, added together.

## PARTICULARS RELATING TO THE NEW CASES IN COLUMN No. 2.

[illegible]

**NOTE**—The attention of the Medical Officer is requested to the daily transmission of the Report of Cholera Cases, during the continuance of the epidemic.

Date, day of 1849.

Signature, \_\_\_\_\_ Medical Officer.





## APPENDIX B., No. 6.

SUMMARY of RETURNS showing the Number of CASES of CHOLERA, and the Number of DEATHS, as reported to the CENTRAL BOARD of HEALTH, that occurred Monthly in the principal Towns in Ireland.

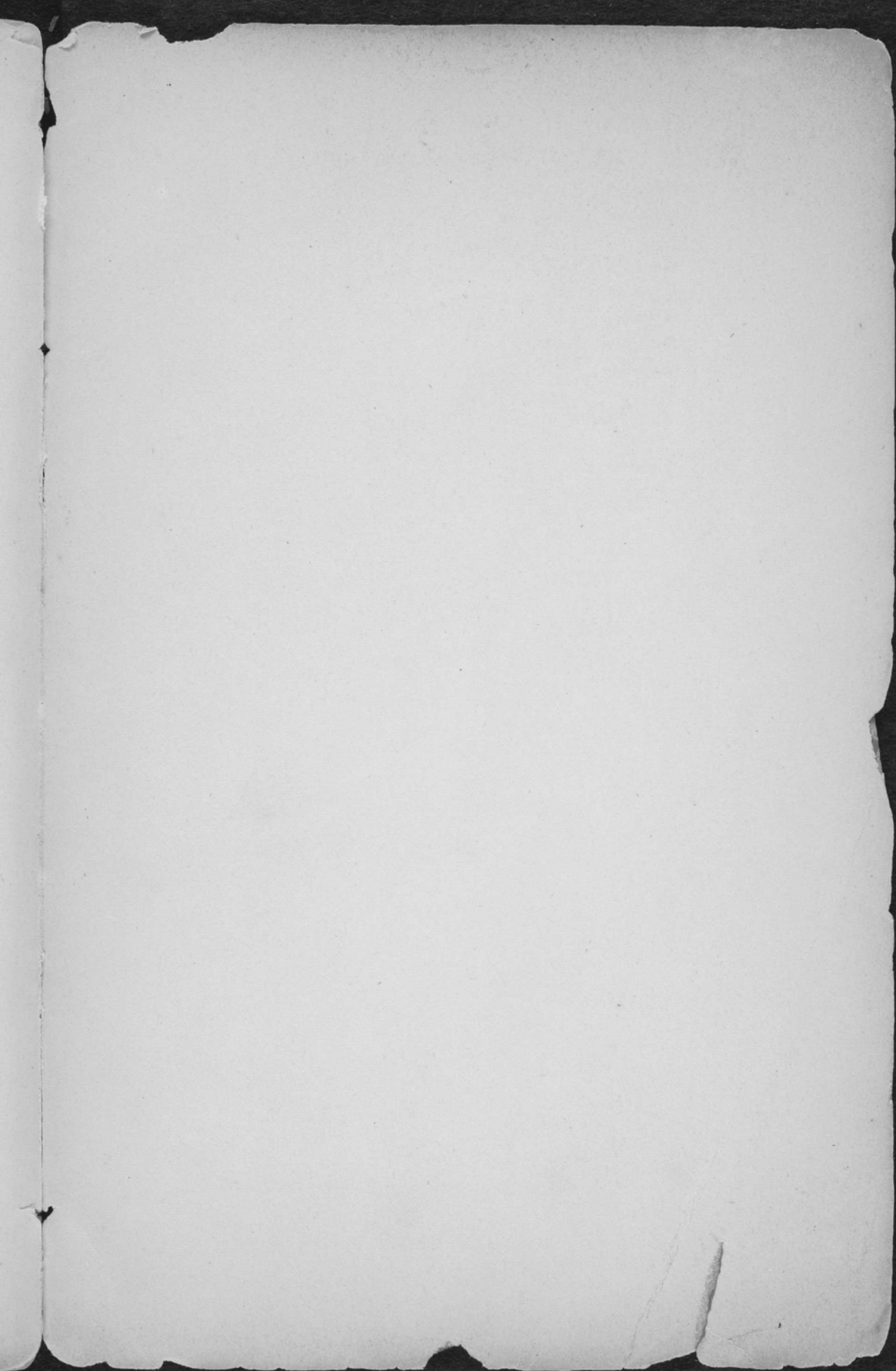
Months.	Belfast.			Cork.			Dublin.			Galway.			Limerick.			Waterford.		
	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.	Number of Cases.	Number of Deaths.	Rate of Mortality per cent.
1848.																		
Dec., .	52	27	51.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1849.																		
Jan., .	152	65	42.7	-	-	-	2	2	100.	-	-	-	-	10	6	-	-	-
Feb., .	323	110	34.	-	-	-	16	6	37.5	-	-	-	-	1,228	591	48.1	-	-
March, .	345	98	28.4	2	1	50.	9	8	88.8	-	-	-	-	251	143	57.	2	66.6
April, .	218	60	27.5	484	197	40.7	72	32	44.4	315	43.7	43.7	3	77	47	61.	47	61.
May, .	170	62	36.4	993	366	36.8	422	197	46.6	111	62.7	62.7	4	8	4	50.	52	48.6
June, .	214	96	44.8	356	151	42.4	974	477	48.8	-	-	-	1	1	1	100.	107	52
July, .	761	265	34.8	270	131	48.5	637	314	49.2	-	-	-	-	-	-	171	90	52.6
Aug., .	306	122	39.8	836	379	45.3	586	276	47.1	-	-	-	-	-	-	153	96	62.7
Sept., .	127	46	36.2	235	104	44.2	866	298	34.4	-	-	-	2	2	1	11	7	63.6
Oct., .	26	10	38.4	-	-	-	222	49	22.	-	-	-	-	-	-	-	-	-
Nov., .	9	6	66.6	-	-	-	7	5	71.4	-	-	-	-	-	-	-	-	-
Dec., .	2	2	100.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals,	2,705	939	35.8	3,176	1,329	41.8	3,813	1,664	43.6	426	47.4	47.4	746	1,500	49.7	522	294	56.3

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for Her Majesty's Stationery Office.









REPORT  
OF THE  
COMMISSIONERS OF HEALTH,  
IRELAND,  
ON  
THE EPIDEMICS  
OF  
1846 TO 1850.

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*Presented to both Houses of Parliament by Command of Her Majesty.*

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DUBLIN:  
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1852.